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## CONTENTS.

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	PAGES
Goa Viragal of the time of Harihara II of Vijayanagara— BY THE REV. H. HERAS, S.J., M.A. .. ..	1—28
The Hindu Arabic Numerals— BY A. A. KRISHNASWAMI AYYANGAR, ESQ., M.A., L.T. ..	29—40
Ants and Folk-Beliefs in South India— BY S. T. MOSES, ESQ. .. ..	41—44
Mughal Land Revenue System— BY L. L. SUNDARA RAM, ESQ., M.A., F.R.E.S. ..	45—56
Rajadhiraja II— BY SOMASUNDARA DESIKAR, ESQ. .. ..	57—66
Studies in Bird-Myths, No. XXII— BY PROF. SARAT CHANDRA MITRA, M.A., B.L. ..	67—68
Studies in Bird-Myths, No. XXIII— BY PROF. SARAT CHANDRA MITRA, M.A., B.L. ..	69—72
Notes .. ..	73—76
Reviews .. ..	77—78

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Goa Viragal of the time of Harihararaya II of Vijayanagara

The  
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GOA VIRAGAL OF THE TIME OF HARIHARA II OF  
VIJAYANAGARA.

BY THE REV. H. HERAS, S.J., M.A.

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IN my last visit to Goa I took rubbings of two viragals kept in the *Museo Lapidario* of Old Goa (Velha Goa), which had excited my interest from the first time I visited the ruins of the ancient capital. I sent those rubbings to Dr. R. Shama Sastry, Director of Archæological Researches in Mysore, who was good enough to interpret and translate them. The one I publish now is the biggest one and belongs to the time of Harihara II of Vijayanagara.<sup>1</sup>

**Description of the Viragal.**

It is a monolith of granite 5 feet 11 inches  $\times$  20 inches. One of the upper corners and a good portion of the lower carving are broken ; but the broken parts are fortunately not missing. Thus we may say that we possess the viragal as it was when being erected, though part of the uppermost carving is completely worn out. The viragal contains six carvings, their size increasing from top to bottom. The first and second carvings represent several

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1. The inscription of the other viragal, that belongs to the early Kadamba dynasty of Banavasi, will be published in a monograph on the Kadambas, which is now being prepared by Mr. George M. Moraes, B.A., one of my research students. I am highly indebted to Dr. R. Shama Sastry for his kindness in deciphering and translating both inscriptions, and I am glad of having this opportunity of making public my gratefulness to him.

women perhaps belonging to the household of the hero. On the third we see a person, most likely the hero himself carried in a palanquin. The fourth, fifth and sixth carvings are scenes of war: two of them show some horsemen. The last one, which is the biggest, represents a hand-to-hand fight among soldiers armed with helmets, spears and shields. This last carving is full of life and action. The previous ones are much inferior; the poses of the figures are purely conventional and inartistic.

The inscription has twelve lines, four of which are between the second and the third carvings, the following five between the third and the fourth, and the remaining three between the fourth and the fifth. The inscription is written in Hale Kannada, and the characters evidently belong to the fourteenth century.

#### Date of the Inscription.

As regards the contents of the inscription, the first thing we notice is that the inscription refers to the reign of one king Harihara. But the number of the Śaka year is not given. Hence the inscription could belong to the reign either of Harihara I (1336-1343) or of Harihara II (1377-1404). Anyhow the inscription mentions the year Raudri, and this year solves this chronological difficulty. For no year Raudri occurs during the reign of Harihara I, and during the reign of Harihara II the year Raudri occurs only once, that is, in Śaka 1302. This is 1380 A.D. Now taking the year Raudri as equivalent to 1380 A.D., the date of the record, according to Swamikannu Pillai's tables, corresponds to Wednesday, the 29th of August. This calculation seems to be correct, for the week-day given in the inscription also is Wednesday. The historical events we shall relate below will also confirm the same date.<sup>1</sup>

#### Harihara II of Vijayanagara.

The record is of the time of "king Harihara, mahārājādhirāja, rājaparamēśvara, destroyer of hostile kings, champion over kings who break their word". The date of the inscription has disclosed that the king referred to cannot but be Harihara II, and this identification is confirmed by the above *birudas*.<sup>2</sup> For Harihara II was the first king of Vijayanagara who assumed imperial titles. He was the son of Bukka I and Gauri<sup>3</sup> or Gaurāmbikā.<sup>4</sup> In some, very few, inscriptions—one of them of 1393—he is

1. Other inscriptions of Harihara II of the same date do not refer at all to the subject of this viragal. Cf. *J.R.B.R.A.S.*, XII, pp. 338-39; Rice, *Mysore Inscriptions*, p. 222 and p. 226; *Ep. Carn.*, VIII, Sb., 152; Tl., 167; IX, Ht., 113; An., 29 and 49; Cp., 55; XII, Kg., 43.

2. *I.e.*, titles.

3. *Ep. Carn.*, V, Bl., 148; Hn., 36.

4. 17 of 1889; 155 of 1901; 404 of 1904; 364 of 1908: *Ep. Carn.*, III, Tn., 134; V, Hn., 7; VI, Kp., 25; VIII, Tl., 201; XII, Tp., 9; Tm., 37; Butterworth, *Nellore Inscriptions*, I, p. 14; Colebrooke, *Miscellaneous Essays*, II, p. 258. In *Ep. Carn.*, V, Cp., 256, the mother of Harihara II is called Honnāyi.

still called, most likely by mistake, Mahāmaṇḍalēśvara.<sup>1</sup> But in all the other inscriptions he is given highly imperial titles.<sup>2</sup> The Nallur grant calls him 'the illustrious king of kings and the supreme lord of kings'.<sup>3</sup> He is also called 'Śūrattān (Sultan) of Hindu kings'.<sup>4</sup> He is said to be 'master of the eastern and western oceans',<sup>5</sup> or 'master of the eastern, southern and western oceans',<sup>6</sup> or even 'sole lord of the eastern, western, southern and northern oceans'.<sup>7</sup> In a Goa copper-plate he is referred to as 'the lord of the east, south and west of India'.<sup>8</sup> In a Vijayanagara Jaina inscription he is supposed to have 'reached the highest point of prowess and profundity, the only abode of valour'.<sup>9</sup> And in the Lingampadu copper-plate of Dēva Rāya II he is mentioned as a monarch 'who wore great glory as a necklace, who verily traversed the fourteen worlds with the fame of the sixteen mahādanas reaching all the quarters of the world'.<sup>10</sup> He is said to sit on a 'secure throne'.<sup>11</sup> Consequently he is, in a Bellur inscription, called 'the raiser of the fortunes of his house',<sup>12</sup> and even in the Chejirla grant of Dēva Rāya II he is mentioned as the founder of the Sangama dynasty.<sup>13</sup> Finally the Ālampāṇḍi plate of his son Virūpāksha states that he 'equals Sutrāman (Indra) in power'.<sup>14</sup>

This glory and fame of Harihara was founded upon his military campaigns and his victories. His reign is often described as an 'increasing reign'.<sup>15</sup> In the Dambal copper-plates we read: "He punished the angry hostile kings; his arms were like the coils of the serpent Sesha; he was earnest in protecting the world; he was the punisher of kings who broke their promises; he satisfied those who begged of him; he was fierce in battle;.....he who is terrible among other kings; he who slays the tigers that are wicked people; he who is possessed of brave prowess".<sup>16</sup> The Nallur grant calls him 'formidable on battle-fields' and 'the destroyer of the pride of the Tiger',<sup>17</sup> that was the crest of the Chōlas of Tanjore. He is said to have 'overcome the kings of Maru',<sup>18</sup> and consequently is called 'the

1. *Ep. Ind.*, III, p. 116; *Ep. Carn.*, VIII, Sb., 200; IX, Ht., 108 and 109.

2. *Ep. Carn.*, V, Bl., 3; VIII, Tl., 13 and 114; X, Sp., 12 and 54.

3. *Ep. Ind.*, III, p. 125.

4. *Ep. Carn.*, V, Bl., 3; VIII, Tl., 173; IX, An., 49; X, Kl., 67; XII, Ck., 152; *J.B.B.R.A.S.*, XII, p. 376.

5. *Ep. Carn.*, X, Gd., 6; XI, Hk., 127.

6. *Ep. Carn.*, VIII, Tl., 173; X, Bg., 15.

7. *Ep. Ind.*, III, p. 125; *Ep. Carn.*, V, Bl., 3; VI, Kp., 34; VIII, Tl., 147; X, Sp., I and 54.

8. *J.B.B.R.A.S.*, IX, p. 227.

9. *S.I.I.*, I, p. 160.

10. Batterworth, *Nellore Inscriptions*, I, p. 14.

11. *Ep. Carn.*, X, Ct., 114.

12. Rice, *Mysore and Coorg from Inscriptions*, p. 268.

13. Batterworth, *Nellore Inscriptions*, I, p. 152.

14. *J.B.B.R.A.S.*, XII, p. 376.

14. *Ep. Ind.*, III, p. 228.

17. *Ep. Ind.*, III, p. 125.

15. *Ep. Carn.*, VIII, Tl., 16 and 147.

18. Rice, *Mysore Inscriptions*, p. 222.



conqueror of the Mururayas'.<sup>1</sup> He waged war with the Mussulmans at Orangal (Warangal)<sup>2</sup> and Adavāni (Adoni).<sup>3</sup> The battle commemorated in the inscription of this viragal belongs to one of these campaigns of Harihara. Harihara II died on Sunday, August 31st, 1404.<sup>4</sup>

### The Capital of Harihara II.

There is unfortunately a gap in the middle of the inscription, where the residence city of the king is mentioned. Yet we know from other inscriptions that Harihara's capital was Vijayanagara. He resided in the same city as his father Bukka I,<sup>5</sup> who built the city of Vijayanagara,<sup>6</sup> and made it his capital.<sup>7</sup> Many inscriptions expressly state that Harihara II 'was established in Vijayanagari'.<sup>8</sup> Accordingly in the inscriptions of Harihara II Vijayanagara is called the 'royal city',<sup>9</sup> 'the chief of cities, which shines on the banks of the Pampa river',<sup>10</sup> 'its moat being the auspicious Tungabhadra, its guardian the world-protector Virūpāksha'.<sup>11</sup>

### Harihara II's Ministers.

The inscription mentions Mallappaḍeyar, *i.e.*, Mallappa Oḍeyar or Voḍeyar, a Mahāpradhana of Harihara. The ministers of Harihara II may be classified into three different sections.

#### A. MINISTERS APPARENTLY NOT RELATED TO THE ROYAL FAMILY.

1. *Vallabha Rāya Mahārāja*.—He is mentioned in an inscription of 1387 as the son of Mali Dēvi and Vīra Dēvarasa. In the same inscription he is given the following *birudas*: "The Chaluki Narayana, Chaluki chakravartti, the mahāmandalēśvara, champion over those who say they are such and such, subduer of the elephant army." The first two *birudas* seem to suggest that he was or at least claimed to be a descendant of the old Chalukya family. He seems to have been ruling over at least a portion of the modern Chitaldroog District (Mysore).<sup>12</sup>

2. *Hariṣa Rāya*.—He is referred to as a minister of Harihara II in the year 1395 in an inscription of the Sorab Taluka, Shimoga District (Mysore).<sup>13</sup>

3. *Udeyaṇṇa Voḍeyar*.—He is also mentioned as a minister of the same Harihara in an inscription of the year 1391 of the same Taluka.<sup>14</sup>

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|--|--|----------------------------|
| 1. <i>J.B.R.R.A.S.</i> , XII, p. 376.  | 2. <i>Ep. Carn.</i> , XII, Ck., 15.            | 3. <i>Ibid.</i> , Kg., 43. |
| 4. <i>Ep. Carn.</i> , VIII, Tl., 127.  | 5. <i>J.B.R.R.A.S.</i> , XII, pp. 373 and 375. |                            |
| 6. <i>Ep. Carn.</i> , V, Cn., 256.   | 11. <i>Ibid.</i> , p. 55.                      |                            |
| 7. <i>Ep. Carn.</i> , X, Mb., 158; Gd., 46.  | 12. <i>Ep. Carn.</i> , XI, Hk., 127.           |                            |
| 8. <i>Ep. Carn.</i> , V, Bl., 3; VIII, Sb., 146, 154 and 512; Tl., 8, 133 and 215. |  |                            |
| 9. <i>Ep. Carn.</i> , Sb., 103.  | 13. <i>Ep. Carn.</i> , VIII, Sb., 103.         |                            |
| 10. Rice, <i>Mysore Inscriptions</i> , p. 227.                                     | 14. <i>Ep. Carn.</i> , VIII, Sb., 181.         |                            |

4. *Mallarasa*.—He was the son of one Heggapa.<sup>1</sup> He was already minister in the time of Bukka I, Harihara Raya (II) being the crown-prince.<sup>2</sup> In 1399, during the reign of Harihara II, he is called the great minister.<sup>3</sup>

5. *Mangappa Daṇṇāyaka*.—He is called great minister and his administration is mentioned in an inscription of the year 1391.<sup>4</sup> In the year 1398 he is still called 'the great minister', and it is said that under him 'Achaṇṇa Voḍeyar was governing the Hoysala country'.<sup>5</sup> From this we may conclude that he was ruling over part of the territory of Mysore.

6. *Muddayya Daṇḍādhīpa*.—Harihara II is said to have inherited 'from his father the wealth of the kingdom, together with the minister Mudda Daṇḍādhīpa'.<sup>6</sup> An inscription of the year 1382 states that Muddayya was a minister to Harihara II 'as Sumantha (was) to Rama'.<sup>7</sup> Another inscription of the same year gives some more details of this *mantri*: "The great minister, promoter of merit in the Kaliyuga, Muddaya Daṇṇāyaka, being the officer for superintendence of the customs of our fifty-six countries".<sup>8</sup> He is also called Mude Daṇṇāyaka 'a dweller at his (Harihara's) lotus feet',<sup>9</sup> or Muddappa.<sup>10</sup> An inscription of Srirangam names him Muddayya Daṇḍanāyaka.<sup>11</sup> All these inscriptions excepting the last are in the Mysore territory.

7. *Guṇḍappa Daṇḍanāyaka*.—He is first mentioned as the Mahāpradhani of Harihara II in an inscription of 1380.<sup>12</sup> In 1395 he is called 'house minister of Harihara'.<sup>13</sup> Another inscription of the same year bears witness that 'the great minister Guṇḍappa Daṇṇāyaka Voḍeyar' was together with king Harihara 'ruling the kingdom of the world in peace and wisdom'.<sup>14</sup> In an inscription of 1397, he, under the name of Guṇḍa Daṇḍanātha, is said to have 'rebuilt with seven storeys the gōpura which Gaṅga Sālār, the Turuka of Kallubarge (Allah-ud-din Hussun Shah Gangu Bahmani, Sultan of Kalbarga), had come and burnt'.<sup>15</sup> The inscription refers to one of the gōpurams of the Chennakēśava temple, Belur. Another inscription of the same year and in the same Belur Taluka calls him general of Harihara II 'Sri Vijaya Guṇḍa Daṇḍanātha'. He is there mentioned as 'distinguished for counsels that draw away the goddess of victory from all other kings'. 'Into the flames of his valour,' continues the inscription, 'the Yavana, Turushka and Andhra hostile kings fell like moths.' He is said to have set up pillars of victory in thirty-seven foreign countries.<sup>16</sup>

1. *Ep. Carn.*, X, Mb., 10.

2. *Ibid.*, Kl., 201.

3. *Ibid.*, Mb., 10.

4. *Ep. Carn.*, X, Bg., 16.

10. *Ep. Carn.*, V, Bl., 63.

5. *Ep. Carn.*, IV, Ch., 114.

11. 58 of 1892.

6. *Ep. Carn.*, V, Cn. 256; Rice, *Mysore Inscriptions*, p. 56.

7. *Ep. Carn.*, V, Bl., 75.

12. Rice, *Mysore Inscriptions*, pp. 227-28.

8. *Ibid.*, Rice, o.c., p. 268.

13. *Ep. Carn.*, V, Bl., 61.

14. *Ep. Carn.*, IX, Cp., 37.

9. *Ep. Carn.*, VIII, Sb., 428.

15. *Ep. Carn.*, V, Bl., 3.

16. *Ibid.*

8. *Nāgaṇṇa Voḍeyar*.—He is also called in an inscription of 1358 Teppada Nāgaṇṇa Voḍeyar.<sup>1</sup> He was already 'ruling the Sādali kingdom', in 1371 under Bukka I.<sup>2</sup> In this inscription he is styled 'champion over Khantikāra Rāya'. Such *biruda* is repeated in inscriptions of 1374,<sup>3</sup> 1384,<sup>4</sup> 1385,<sup>5</sup> and 1393.<sup>6</sup> Nāgaṇṇa is said in an inscription of 1380 to be 'ruling an increasing kingdom',<sup>7</sup> but unfortunately the name of this kingdom is illegible. He seems to be still alive in 1390, for an inscription of this year states that the Nigarilichōla maṇḍala belongs to him.<sup>8</sup> One year after, the establishment of his kingdom is still referred to.<sup>9</sup> He evidently ruled over part of the modern Mysore territory, since all the above inscriptions are in the Kolar District.

9. *Dēvaṇṇa Voḍeyar*.—He was the son of Nāgaṇṇa Voḍeyar,<sup>10</sup> and is also called in several inscriptions Dēpaṇṇa Voḍeyar. He seems to have inherited from his father that *biruda* mentioning the latter's championship over Khantikāra Rāya.<sup>11</sup> In 1374 he is mentioned as 'ruling the kingdom of the world (i.e., his province)',<sup>12</sup> One year later he is called 'great minister', and is said to have instituted a religious festival 'in order that religious merit might accrue to his father Īśvara-dēva'.<sup>13</sup> This is an evident mistake, or perhaps Nāgaṇṇa Voḍeyar was also called Īśvara-dēva. In 1379 he receives the following *birudas*:—"The mahāmaṇḍalēśvara, subduer of hostile kings, a spear for the head of royal elephants, a smokeless pit for hostile kings, Bhairava in battle, the servant of Virabhadra Rāya, terrifier of Prithivīpati Rāya, statue at the door of Harihara's abode, champion over the three kings".<sup>14</sup> In 1385 a grant of his to a god is recorded,<sup>15</sup> and in 1393 his ministers (or subordinate governors of his province) are referred to.<sup>16</sup>

#### B. MINISTERS WHO WERE SONS OF HARIHARA II.

10. *Dēva Rāya Oḍeyar*.—In an inscription of 1382 he is said to be the king's son and to govern Udayagiri. He was most likely Viceroy of the Telugu country. He is named Viradēvarāya Oḍeya and styled Mahāmaṇḍalēśvara.<sup>17</sup> This must be the future Dēva Rāya I, who succeeded his brother Bukka II in 1406.

11. *Virūpāksha*.—According to his Ālampūṇḍi plate he was the son of Harihara II and Mallādēvī, this lady being of the race of Rāmadēva.<sup>18</sup> This

1. *Ep. Carn.*, X, Cb., 42.

2. *Ep. Carn.*, X, Cb., 63.

3. *Ep. Carn.*, X, Sd., 112.

4. *Ep. Carn.*, X, Kl., 67.

5. *Ep. Carn.*, X, Cb., 10.

6. *Ep. Carn.*, X, Ct., 114.

7. *Ep. Carn.*, X, Cb., 43.

8. *Ep. Carn.*, X, Kl., 105.

9. *Ep. Carn.*, X, Bg., 16.

10. *Ibid.*, Cb., 42; Sd., 112; Cb., 10.

11. *Ibid.*, Kl., 80.

12. *Ibid.*, Sd., 112.

13. *Ibid.*, Ct., 94.

14. *Ibid.*, Kl., 113.

15. *Ibid.*, Cb., 10.

16. *Ibid.*, Ct., 114.

17. 404 of 1904.

18. *Ep. Ind.*, III, p. 228; *Ep. Carn.*, VIII, Tl., 13.

plate states that 'after having conquered the kings of Tanḍira (Jinji), Choḷa (Tanjore) and Pāṇḍya (Madura) and the Siṃhaḷas (Ceylon), he (Virūpāksha) presented crystals (precious stones) and other jewels to his father'.<sup>1</sup> This war in the Tamil country was waged before 1383, when he granted the Ālampūṇḍi village to the Brahmans, as recorded in this plate.<sup>2</sup> An inscription of the year 1404 in the Tirthahalli Taluka, Shimoga District, Mysore, calls him mahārāya and he is said to be in Vijayanagari protecting the varṇāśramadharma and ruling the Empire in peace and wisdom'.<sup>3</sup> This seems to show that he was then ruling that portion of the Empire where the inscription is found, that is, the northern part of the present Mysore State, i.e., the male-rājya or Ārāga kingdom. Accordingly his rule over the Tamil country seems to be over in the beginning of the fifteenth century.

12. *Viruppaṇṇa Uḍaiyar*.—He is called the son of Harihara II in all the inscriptions I shall mention below, excepting the last three inscriptions of the Tirthahalli Taluka. We find him ruling the Tamil country in 1382,<sup>4</sup> 1384,<sup>5</sup> 1385,<sup>6</sup> 1387,<sup>7</sup> 1388,<sup>8</sup> 1389,<sup>9</sup> 1390,<sup>10</sup> 1391,<sup>11</sup> 1392,<sup>12</sup> 1393,<sup>13</sup> 1395,<sup>14</sup> 1398,<sup>15</sup> and 1400.<sup>16</sup> His jurisdiction extended as far south as the modern Pudukkottai State, for he fixed the fee to be paid to the temple by Kalla Velaikkārar, Pudukkottai.<sup>17</sup> He had under him his cousin Jammaṇa Uḍaiyar, the son of Kampana Uḍaiyar, for an inscription of 1388 recording a grant of the latter acknowledges the authority of Viruppaṇṇa.<sup>18</sup> An inscription of 1398 gives him the title of Tribhuvanachakravartin.<sup>19</sup> In all these inscriptions he is named Viruppaṇṇa, Vira Viruppaṇṇa, Viruppaṇṇa or Viruppa. But in three inscriptions of Mysore he is called Virappa Oḍeyar, Virappa being an evident contraction for Viruppaṇṇa. Thus an inscription of 1405 states that Virappa 'was protecting the Ārāga kingdom'.<sup>20</sup> Apparently in the beginning of the fifteenth century Viruppaṇṇa Uḍaiyar (Tamil form) was transferred from the Tamil country to rule the Ārāga kingdom, and consequently is called in future Virappa or Viruppaṇṇa Oḍeyar (Kanarese form).

There is nevertheless an objection against this identity between Viruppaṇṇa and Virappa. Viruppaṇṇa is always, excepting once, mentioned as

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| 1. <i>Ep. Ind.</i> , III, p. 228.                 | 11. 230, 241 and 251 of 1906.                          |
| 2. <i>Ibid.</i> , p. 229.                         | 12. 76 of 1908.  |
| 3. <i>Ep. Carn.</i> , VIII, Tl., 13.              | 13. 649 of 1902.                                       |
| 4. 654 of 1902.                                   | 14. 194 of 1906.                                       |
| 5. 665 of 1909; 51, 75 and 430 of 1913.           | 15. 112 of 1900; 353 of 1911.                          |
| 6. 396 of 1908.                                   | 16. 364 of 1908; 313 of 1909; 78 of 1913; 354 of 1914. |
| 7. 234 of 1904; 299 of 1910.                      | 17. 368 of 1914.                                       |
| 8. 565 and 572 of 1902; 236 of 1906; 428 of 1908. | 18. 572 of 1902.                                       |
| 9. 483 of 1902.                                   | 19. 353 of 1911.                                       |
| 10. 170 of 1914.                                  | 20. <i>Ep. Carn.</i> , VIII, Tl., 22.                  |

the son of Harihara, while Virappa is said to be the son of Bommanpa and the grandson of Rayappa Odeyar.<sup>1</sup> This parentage may be a mistake of the poet who composed, or of the engraver who inscribed, the record, as in the case of Vira Viruppanpa Udayar once mentioned as the son of another Vira Viruppanpa Udayar.<sup>2</sup> Nevertheless Bommanpa and Rayappa are referred to many times, with slight differences, as the father and grandfather of the following minister, whom we shall be obliged to identify with Virappa. This inclines me to believe that this parentage is not due to any mistake; but Bommanpa and Rayappa simply are two names respectively given in the Kanarese country to Harihara II and to his father Bukka I. We shall give below catalogues of the different names given to these kings in the epigraphical records. Those catalogues will show that our explanation is not so odd as it may appear at the first sight. Moreover, the wife of Bommanpa, or Brahma Raja—as he is also called—is said to be Virupāmbikā.<sup>3</sup> This is precisely the name of the apparently principal wife of Harihara II.<sup>4</sup> As a matter of fact, Virappa Odeyar acquired some lands in the modern Tirthahalli Taluka to form an agraḥāra christened by him Madhava-Virupāmbikā-pura.<sup>5</sup> He evidently wanted to perpetuate the name of his mother. Was Madhava another name of Harihara II? We surely reply in the affirmative, for in an inscription of the year 1391 Harihara is named Mādarasa Voḍeyar<sup>6</sup> which is an evident contraction of Madhava Voḍeyar.

*Note 1.*—Identification of Virūpāksha and Viruppanpa.

The two preceding ministers, Nos. 11 and 12, are evidently the same with two different names. The reasons that compel me to make the preceding statement are the following:—

(a) The first inscription of Virūpāksha ruling the Tamil country is of the year 1383, though the same inscription shows that he was in the Tamil country some time before, for he defeated the rulers of Jinji, Tanjore and Madura prior to that year. The first inscription of Viruppanpa in the Tamil country is precisely of the year 1382.

(b) In the beginning of the fifteenth century both Virūpāksha and Viruppanpa are transferred to rule the Āraga kingdom in the Kanarese country. The first inscription of Virūpāksha in Āraga is of the year 1404, and the first of Viruppanpa is of the year 1405.

(c) The similarity of both the names also seems to suggest the same.

(d) Mr. V. Rangacharya, perhaps on account of this similarity, had already identified Virūpāksha and Viruppanpa in 1919.<sup>7</sup>

1. *Ep. Carn.*, VIII, Tl., 24. *Cf. Ibid.*, 22. 2. 428 of 1908. 3. *Ep. Carn.*, VIII, Tl., 133.

4. *Ibid.*, 127. 5. *Ibid.*, 105. *Cf., Ibid.*, 123. 6. *Ibid.*, Sb., 181.

7. Rangacharya, *Inscriptions of the Madras Presidency*, I, pp. 63, 63, 84, 95, 123, 175, 337, 384, 388, 470; II, pp. 1298, 1324, 1327, 1328, 1338, 1342; III, p. 1634, etc.

13. *Vithaṇṇa Voḍeyar*.—He is given the following names in the inscriptions: *Vithaṇṇa*, *Viththaṇṇa*, *Vithappa*, and *Viththala*. All his inscriptions excepting one are found in the Kanarese country, and in the ancient Āraga kingdom. His first inscription of the year 1398 comes from the Kolar District, Mysore, which is a purely Tamil country. It records a grant of certain villages.<sup>1</sup> In 1404 we already find him 'protecting the Āraga kingdom'.<sup>2</sup> In the same year he is called 'great minister'.<sup>3</sup> In this year also he made a grant to Virūpāksha and 30 Brahmans.<sup>4</sup> He is still protecting the Āraga kingdom in the years 1405,<sup>5</sup> 1407,<sup>6</sup> 1408,<sup>7</sup> 1409,<sup>8</sup> 1410,<sup>9</sup> and 1417.<sup>10</sup> This final date corresponds to the reign of Vira Vijaya. In an inscription of 1408 we read that 'Vithaṇṇa Vaḍer of the Āraga eighteen *kampana* was protecting Āraga, Gutti, Bārakalūr (Barkur), Mangalūr (Mangalore), and the Karnātaka kingdom as far as the western ocean'.<sup>11</sup>

*Note 2.*—Identification of Virūpāksha-Viruppaṇṇa with Vithaṇṇa Voḍeyar.

*Vithaṇṇa Voḍeyar* is evidently a new name of the minister Virūpāksha-Viruppaṇṇa. The reasons of this new identification are the following:—

(a) Virūpāksha-Viruppaṇṇa was Viceroy in the Tamil country till the beginning of the fifteenth century when he was transferred to the Āraga kingdom. We have only one inscription of Vithaṇṇa in the Tamil country of the year 1398; but this shows that he was governing there towards the close of the fourteenth century. His first inscription of Āraga is of the year 1404, precisely the same year of the first inscription of Virūpāksha in Āraga.

(b) The father and grandfather of Vithaṇṇa are, with slight differences, the same as the father and grandfather of Viraṇṇa (Viruppaṇṇa), as the tables below will disclose.

(c) The mother of Vithaṇṇa is said to be named Virupāmbikā,<sup>12</sup> the same name being Viraṇṇa's mother.

Viththaṇṇa Voḍeyār is another name of prince Bukkaṇṇa Voḍeyar, the future Bukka II.<sup>13</sup> But the latter cannot be identified with minister No. 13. Bukka ascended the throne in 1404 and died in 1406, while Vithaṇṇa Voḍeyar ruled over the Āraga kingdom at least till the year 1417.

Against this identity of Vithaṇṇa with Virūpāksha-Viruppaṇṇa it may be objected that Vithaṇṇa does not seem to be a son of Harihara II. The

1. *Ep. Carn.*, X, Mb., 29.

2. *Ep. Carn.*, VIII, Tl., 11, 129, 130, 133 and 196.

3. *Ibid.*, 129.

4. *Ibid.*, 104.

5. *Ibid.*, 126.

6. *Ibid.*, 123 and 162.

7. *Ibid.*, 131.

8. *Ep. Carn.*, VII, Sh., 70.

9. *Ep. Carn.*, VIII, Tl., 205.

10. *Ibid.*, 148.

11. *Ep. Carn.*, VI, Kp., 33.

12. *Ep. Carn.*, VIII, Tl., 133.

13. *Ibid.*, 129.

names given in the inscriptions to his father and grandfather may be seen in the following table :—

Vithaṇṇa's		
Father	Grandfather	Inscription
Bommaṇṇa	...	<i>Ep. Carn.</i> , VIII, Tl., 13.
Bommaṇṇa Voḍeyar	Brahma Rāyappa Voḍeyar	<i>Ibid.</i> , 205.
Bommaṇṇayya	...	<i>Ibid.</i> , 129.
Bommaṇṇa Voḍeyar	Rāyappa Voḍeyar	<i>Ibid.</i> , 196.
Ramappa Oḍeyar	...	<i>Ibid.</i> , 11.
Rāyappa Oḍeyar	...	<i>Ibid.</i> , 162.
Brahma Rāja	Saṅkappa Rāyappa	<i>Ibid.</i> , 133.
Brahma Rāja	Saṅkappa Rāyappa	<i>Ibid.</i> , 126.
Brahma Dēva Oḍeyar	Rāyappa Saṅkappa	<i>Ibid.</i> , 152.
Brahma Rāja	...	<i>Ibid.</i> , 122.

The above table shows that even among the inscriptions of the Tirthahalli Taluka there is discrepancy as regards Vithaṇṇa's father and grandfather. Anyhow an inspection of all the different forms of the father's name clearly shows, first, that his family title or name was Voḍeyar or Oḍeyar, which also is given to Harihara II; second, that Vithaṇṇa's father is called Dēva, Rāja and Rāyappa, titles which are also given to Harihara. It seems, therefore, considering the above reasons in favour of the identity, and not overlooking these observations, that Harihara II is meant by the above names of Vithaṇṇa's father, the differences being due either to a mere error, or to the fact that Harihara was known by different names.

14. *Chikka Rāya Voḍeyar*.—In an inscription of 1379 he is called Harihara II's son and Mahāmaṇḍalēśvara. According to this inscription he was then 'in Āraga, the city of the Male-rājya, ruling the thirty-six kampaṇa in peace and wisdom'.<sup>1</sup> He was still governing the Āraga kingdom in 1381.<sup>2</sup> Accordingly he seems to have preceded, perhaps not immediately, his brother Virūpāksha-Viruppaṇṇa-Vithaṇṇa on the throne of the Male-rājya.

15. *Bukkappa Voḍeyar*.—He was the son of Harihara II,<sup>3</sup> and Pampā<sup>4</sup> or Virupāmbikā<sup>5</sup> and was to succeed to the throne after his father's demise. He seems to have been ruling part of the Empire from the last years of his grandfather's reign. For an inscription of the year 1375—two years before Harihara's accession—tells us that he 'was ruling the kingdom of the world'.<sup>6</sup> This and all the other inscriptions of prince Bukkaṇṇa are

1. *Ep. Carn.*, VI, Hl., 84.

2. *Ibid.*, Kp., 31.

3. *Ep. Carn.*, XII, Tm., 39.

4. *Ep. Carn.*, VI, Kp., 25.

5. *Ep. Carn.*, VIII, Tl., 127.

6. *Ep. Carn.*, IX, Dv., 13.



situated in the northern portion of the modern Bangalore District and in the Districts of Kolar and Tumkur. I could not find any in the District of Anantapur; anyhow Penukonda is more than once mentioned as at least one of the capitals of his Viceroyalty. This seems to be the so-called kingdom of Penukonda. We find him there in 1387,<sup>1</sup> 1388,<sup>2</sup> 1389,<sup>3</sup> 1392,<sup>4</sup> 1395,<sup>5</sup> 1396,<sup>6</sup> and 1397.<sup>7</sup> In all these inscriptions he is called Bukka, Bukkaṇṇa Oḍeyar, Bukkaṇṇa Voḍeyar, Immadi Bukkaṇṇa Uḍaiyar, Immadi Bukka Rāya, Vira Bukkaṇṇa Uḍaiyar, Vira Pratāpa Bukka Rāya and Vira Vijaya Immadi Bukka Rāya Oḍeyar. In 1388 he receives the titles 'Mahārājādhirāja Rājaparamēśvara',<sup>8</sup> which are imperial. In the same year he is said to be 'ruling the earth from his residence at Muḷavāyil',<sup>9</sup> or in the city of Penugonḍe (Penukonda).<sup>10</sup> While in this city 'in order that all subjects might be in happiness' he summoned an hydraulic engineer and ordered him 'to bring the river Henne to Penugonḍe'.<sup>11</sup> In spite of the imperial titles given him in 1388, a year later he is only called mahāmaṇḍalēśvara.<sup>12</sup> Again in 1392 Penugonḍe is mentioned as his capital,<sup>13</sup> but in 1395 he is said to be ruling in Muḷavāyi.<sup>14</sup> Perhaps he had two residences or capitals of his Viceroyalty. An inscription of 1382 states that 'Bukkaṇṇa Oḍeyar was ruling the Empire'.<sup>15</sup> Does this mean that prince Bukka was ruling over the whole Empire from the city of Vijayanagara, while his father was perhaps touring the distant provinces? The fact is that we have no inscription of Bukka of the year 1382 in the old Penukonda kingdom. Moreover, there is an inscription testifying that 'the destroyer of hostile kings, the mahāmaṇḍalēśvara Śrī Vira Hariyappa Uḍaiyar was at Sannai Muḷavāyil' (Bangalore Taluk), in 1341.<sup>16</sup> Evidently Harihara II had left his capital. Was this the beginning of a tour during which his heir-apparent took his place at Vijayanagara, where we still find him in 1382?

### C. MINISTERS WHO WERE SONS OF BUKKA I.

16. *Bhāskara*.—We know only one inscription of this minister, in which he is called the son of Bukka I. The inscription is found in the Badvel Taluka, Cuddapah District. It records the building of a tank at

1. *Ep. Carn.*, XII, Tm., 39.

2. *Ep. Carn.*, IX, Ma., 20.

3. *Ep. Carn.*, X, Mb., 12.

4. *Ibid.*, Gd., 68.

5. *Ibid.*, Sp., 54.

6. *Ibid.*, Mb., 34.

7. *Ibid.*, 73.

8. *Ep. Carn.*, IX, Ma., 20.

9. *Ep. Carn.*, X, Bp., 17.

10. *Ibid.*, Gd., 6.

11. *Ibid.* These irrigation works were improved five years later, in 1397, when a canal was built 'in the Penugonḍe kingdom' by order of Jomma Dēvi, grand-daughter of Bukka I, and therefore cousin of prince Bukkaṇṇa. *Ep. Carn.*, X, Bg., 10.

12. *Ep. Carn.*, X, Mb., 11.

13. *Ibid.*, Gd., 68.

14. *Ibid.*, Sp., 54.

15. *Ep. Carn.*, IX, Ht., 154.

16. *Ep. Carn.*, IX, Bn., 73.



Pōrumāmilla by one Anantarajan, Bhaskara's minister or assistant. Bhaskara is also called Bhavadura. This seems to be the Sanskritised form of Bahadur.<sup>1</sup>

17. *Tippaṇṇa Voḍeyar*.—He is said to be the eldest son of Bukka I.<sup>2</sup> His wife was called Siṅgara Dēvi.<sup>3</sup> The two inscriptions we have about him come from the Male-rājya, the old Āraga kingdom. In one of 1277, the last year of his father's reign, he receives the following *birudas* apparently after his being dead :—"Son of the axe to hostile kings, a gallant to harlots, champion over twelve chiefs, born in modesty, born with the blessing of gods and Brahmans, supporter of all merit, Dayi.....Vira Dēva."<sup>4</sup> He being himself the eldest son, naturally had to succeed his father. Nevertheless he died before Bukka I.

18. *Lakhaṇṇa Voḍeyar*.—He was the brother of Tippaṇṇa Voḍeyar,<sup>5</sup> and seems to have succeeded him in the government of the Āraga kingdom, for the two inscriptions known to us come from the same territory, and both are dated after those of Tippaṇṇa. One of the same year 1377 records that Lakhaṇṇa was governing the Kunkuse naḍ, Kadur District.<sup>6</sup> The other records one of his orders issued in the year 1399 in the Hassan District.<sup>7</sup> He could not have been ruling Āraga the whole time since 1377, for in the meantime other ministers had occupied that post.

19. *Sōvaṇṇa Oḍeyar*.—He is also named Vira Savaṇa, Savaṇṇa and Satappa. He seems to be a son of Bukka I.<sup>8</sup> In fact one of his cousins bears the same name.<sup>9</sup> He is said to be 'protecting the Āraga kingdom' in the years 1394<sup>10</sup> and 1397.<sup>11</sup>

20. *Virupaṇṇa Voḍeyar*.—Virupaṇṇa Voḍeyar or Vira Virupaṇṇa Voḍeyar, or Vira Udayagiri Virupaṇṇa Oḍeyar, or Vira Mudageri Virupaṇṇa Voḍeyar, or Vira Udagiri Virūpāksha Rāya—all these names are given him in the inscriptions—was also a son of Bukka I.<sup>12</sup> He was for some years the ruler of the Male-rājya or Āraga kingdom. Here there are inscriptions of the time of his rule of the years 1362,<sup>13</sup> 1363,<sup>14</sup> 1368,<sup>15</sup> 1370,<sup>16</sup> 1377,<sup>17</sup> 1379,<sup>18</sup> and 1380.<sup>19</sup> His jurisdiction seems to have been extended, at

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| 1. 91 of 1913.   | 2. <i>Ep. Carn.</i> , V, Hn., 19.                  | 3. <i>Ibid.</i>                    |
| 4. <i>Ep. Carn.</i> , VI, Kp., 19.   |  | 5. <i>Ibid.</i>                    |
| 6. <i>Ibid.</i>  |  | 7. <i>Ep. Carn.</i> , V, Cn., 173. |
| 8. 169 of 1909. He is said to be the son of Vira Marappa Voḍeyar in <i>Ep. Carn.</i> , VIII, Tl., 132. |  |                                    |
| 9. 500, 503, and 504 of 1906.  | 10. <i>Ep. Carn.</i> , VIII, Tl., 173.             | 11. <i>Ibid.</i> , 146.            |
| 12. <i>Ep. Carn.</i> , VI, Mg., 52; VIII, Tl., 20, 28, 114, 125, 167 and 197.                          |  |                                    |
| 13. <i>Ep. Carn.</i> , VIII, Tl., 20.  | 14. <i>Ibid.</i> , 197.                            | 15. <i>Ibid.</i> , 30.             |
| 16. <i>Ep. Carn.</i> , VI, Mg., 52; X, Mb., 36.  | 17. <i>Ibid.</i> , Kp., 19; VIII, Tl., 28 and 125. |                                    |
| 18. <i>Ep. Carn.</i> , VIII, Tl., 114.   | 19. <i>Ibid.</i> , 116 and 167.                    |                                    |

least for a time, to the kingdom of Kalasa.<sup>1</sup> The inscription of 1368 mentions 'Virupaṇṇa Voḍeyar's royal palace in the city of Āraga'.<sup>2</sup> In 1379 he is given imperial *birudas*.<sup>3</sup>

21. *Kumara Kampaṇa Uḍaiyar*.—He was one of the most illustrious sons of Bukka I.<sup>4</sup> From lithic records as well as from poems we know that Kumara Kampaṇa conquered the kingdom of Madura from the Mussulmans and even captured a portion of the Ramnad zemindari.<sup>5</sup> Undoubtedly on account of this campaign he is given extraordinary *birudas*: "Mahāmaṇḍalēśvara, subduer of hostile kings, champion over kings who break their word",<sup>6</sup> "lord of the four oceans",<sup>7</sup> "a sun in unbound valour, a moon incarnate in serenity, a unique treasure of music, a tree of paradise to the learned, intent on establishing dharma, lord of the goddess of sovereignty, with a name renowned among kings."<sup>8</sup> After his conquest of Madura, the kingdoms of Penukonda and Seringapatam were most likely entrusted to him, for from the year 1351 till the year 1381 the majority of his inscriptions are in the Bangalore, Kolar and Mysore Districts. The years of these inscriptions are the following: 1351,<sup>9</sup> 1356,<sup>10</sup> 1361,<sup>11</sup> 1362,<sup>12</sup> 1363,<sup>13</sup> 1366,<sup>14</sup> 1368,<sup>15</sup> 1369,<sup>16</sup> 1370,<sup>17</sup> 1372,<sup>18</sup> 1373,<sup>19</sup> 1374,<sup>20</sup> 1375,<sup>21</sup> 1380,<sup>22</sup> and 1381.<sup>23</sup> In this year Kampaṇa is called 'the great minister' and is said to have set up four pillars with capitals in the Belur temple.<sup>24</sup> The inscriptions mention some of the officers and ministers of Kampaṇa: in 1353 his officer Gopaṇa Rāya is referred to.<sup>25</sup> In 1362 we hear of his 'palace minister' Somappa Voḍeyar.<sup>26</sup> In 1362 'the sole manager of his palace' Abhaṅga Garuḍa Narayaṇa is made known to us.<sup>27</sup> In 1380 we are told that under Kampaṇa's orders Ballapa Mantri, son of Sangama Rāja, was governing Hadināḍ.<sup>28</sup> We hear likewise of two of his sons: one Jammaṇa Uḍaiyar,<sup>29</sup> who is said to be 'ruling the earth' in 1375, most likely under his father's

1. *Ep. Carn.*, VI, Mg., 52.

2. *Ep. Carn.*, VIII, Tl., 30.

3. *Ibid.*, 114.

4. 21 of 1890; 18 of 1899; 56 of 1900; 250 of 1901; 13 of 1903; 159, 163 and 701 of 1904; 29 and 390 of 1905; 248 and 249 of 1906; 324 of 1911; 195, 267 and 309 of 1912; 13 and 246 of 1913; *Ep. Carn.*, X, Kl., 101, etc.

5. Cf. Heras, *The Aravidu Dynasty of Vijayanagara*, I, pp. 103-4.

6. *Ep. Carn.*, X, Kl., 202.

17. *Ibid.*, Ch., 97.

7. *Ibid.*, Ct., 94.

18. *Ibid.*, Gu., 32.

8. *Ibid.*, Kl., 222.

19. *Ep. Carn.*, X, Kl., 205.

9. *Ibid.*, 202.

20. *Ep. Carn.*, IX, Ht., 157.

10. *Ibid.*, 222.

21. *Ep. Carn.*, X, Cl., 94.

11. *Ibid.*, 203.

22. *Ep. Carn.*, IV, Ch., 64.

12. *Ibid.*, Ct., 95; Mb., 58.

23. *Ep. Carn.*, V, Bl., 52.

13. *Ibid.*, Kl., 101.

24. *Ibid.*

25. 523 of 1906. 26. *Ep. Carn.*, X, Mb., 58.

14. *Ibid.*, 162.

27. *Ibid.*, Kl., 101.

15. *Ep. Carn.*, IV, Gu., 46.

28. *Ep. Carn.*, IV, Ch., 64.

16. *Ibid.*, Yl., 64.

29. 572 and 573 of 1902; 224 of 1906.

orders.<sup>1</sup> He is most likely the same who, named Jannarasa Oḍeyar, 'was protecting the Āraga kingdom' in 1401.<sup>2</sup> The second son of Kampana was named Ommaṇa Uḍaiyar.<sup>3</sup> He seems to have been ruling over a portion of the Tamil country, for an inscription of the year 1374 at the base of the Tirumalai rock records a transaction 'during the reign of the illustrious mahāmaṇḍalika, the conqueror of hostile kings, the destroyer of those kings who break their word, the lord of the eastern, southern, western and northern oceans, the illustrious Ommaṇa Uḍaiyar, the son of the illustrious Kampana Uḍaiyar'.<sup>4</sup> Kampana died between 1381 and 1388, for in the latter year his son Jammaṇa makes a grant for five persons who had to recite the Veda for the merit of his deceased father.<sup>5</sup>

22. *Madhava*.—Some authors call this minister Madhavacharya;<sup>6</sup> but he is never called so in the inscriptions and grants. This denomination comes from the mistake always committed hitherto of identifying this Madhava, who was still living towards the close of the fourteenth century, with the cousin of the celebrated author and commentator Sāyaṇa, the great Madhavacharya, who was evidently already old during the first half of the century when he helped Harihara I in founding the Empire.<sup>7</sup> I have found nowhere that he was the son of Bukka I. I hope that the proofs I shall advance in the following pages will satisfy my readers on this point. The first inscription that clearly speaks of this minister is one of the year 1379. Yet I am of opinion that an inscription of the year 1377 must also be attributed to him. This inscription says that the 'great minister Mādarasa Oḍeyar was ruling the Āraga, Gutti and the other kingdoms of the hill country'.<sup>8</sup> I feel sure that Mādarasa is a contraction of Madhavarasa, for only two years later we find Madhava 'in the city of Āraga ruling the Āraga and Gutti thirty-six kampana in peace and wisdom'.<sup>9</sup> Evidently he was the Viceroy of the Male-rājya. Soon after, nevertheless, we find him at the head of a military expedition. A Goa copper-plate grant informs us that sometime previous to 1390 the Mahāpradhana Madhava conquered the city of Goa from the Muhammadans. "He," says the document, "at the head of a large army, set out with an intention of subduing countries. A capital surrounded by a sea in the Konkan and bearing the name Goa was environed by an ocean of his forces. This heroic minister banished all the numerous

1. *Ep. Carn.*, X, Ct., 94.

3. 87 of 1887.

5. 572 of 1902.

6. Cf. Bhau Daji, *Brief Notes on Madhava*, *J.B.B.R.A.S.*, IX, p. 227; *A.S.I.*, *W.C.*, 1920, p. 56.

7. Cf. Seshadri Ramana Kavulu, *Andhra Mantrīs*, pp. 37-8 (in Telugu).

8. *Ep. Carn.*, VII, Sk., 35.

2. *Ep. Carn.*, VIII, Tl., 31.

4. *S.I.I.*, I, p. 104.

9. *Ep. Carn.*, VII, Hl., 84.

Turushkas (Mussulmans) infesting the country." <sup>1</sup> Mr. Bhau Daji thinks that the date of this conquest of Goa is about 1380.<sup>2</sup> This conquest is also referred to by the Chandala grant of Harihara II. This document states that the expedition was carried out following the orders of Harihara. "According to the orders of his master," says the grant, "Madhava mantri had gone with a mighty army to the capital of the Konkana called Govāpura and expelled the army of Turushkas established at that place."<sup>3</sup> Indeed the campaign was a great success for the Hindu army. The Kuchchar grant informs us that after the conquest Madhava 'set up again Saptakotishwar and the other ancient idols that had been rooted up and thrown away by them (the Mussulmans)'.<sup>4</sup> The territory conquered on this occasion extended northwards more than the present territory of Goa. For Madhava, before leaving the territory of Goa, made two grants to the Brahmans: the village of Chandala (Candola) in the Province of Vārāsa (?) was granted to twenty-one Brahmans,<sup>5</sup> and the village of Kuchchar (Kocre), then newly renamed Madhavapur, was also granted 'to twenty-four Brahmans, who are well versed in the Vedas and Shastras'.<sup>6</sup> This second village is situated in the present state of Sawant Wadi.<sup>7</sup> By this time, besides the newly conquered territory of Goa, he had under his jurisdiction the Barakura-rājya or South Kanara District; for in the same year 1380 he set up the image of Gopinatha in the Barakura matha.<sup>8</sup> It seems nevertheless that he had there a governor who ruled the rājya on his behalf. Of this governor, named Bommarasa Oḍeya, we have three inscriptions of the years 1378,<sup>9</sup> 1379,<sup>10</sup> and 1380;<sup>11</sup> and another of Jakkana Oḍeya of the year 1382.<sup>12</sup> In 1381 Madhava 'was ruling at Jayantipura (Banavasi)',<sup>13</sup> that was the capital of the kingdom of Haive or North Kanara with part of the modern State of Mysore. Nevertheless, he seems to have retained the government of the Male-rājya, for in 1384 he made a grant in Āraga.<sup>14</sup> Madhava ruled over Goa at least till the year 1387, for at this time he made a grant of land to the temple of Kukke,

1. *J.B.B.R.A.S.*, IV, p. 108.

2. Bhau Daji, *Brief Notes on Madhava*, *J.B.B.R.A.S.*, IX, p. 227.

3. *A.S.I.*, W.C., 1920, p. 56.

4. *J.B.B.R.A.S.*, IV, p. 108. The Chandala grant, now in the Prince of Wales' Museum of Western India, Bombay, also refers to the setting of the idols at Goa, but the author of the Archaeological Report misunderstood that statement and said that Madhava 're-established princes who had been deprived of their possessions'. It is to be hoped that this grant will soon be published in *Epigraphia Indica*.

5. *A.S.I.*, W.C., 1920, p. 56. Candola is situated in the modern province of Poona.

6. *J.B.B.R.A.S.*, IV, p. 108.

7. *Cf. Ibid.*, p. 100.

8. 135 of 1901.

9. 155 of 1901.

10. 126 of 1901.

11. 135 of 1901.

12. 174 of 1891.

13. *J.B.B.R.A.S.*, IX, p. 227.

14. *Ep. Carn.*, VIII, Tl., 147.

Uppinangadi Taluk, South Kanara District, the title given him in the inscription being 'Rāya of Goa'.<sup>1</sup> This grant and another one he made to the temple of Subramania, in the same Taluka, with the title of sovereign of Goa,<sup>2</sup> show that Madhava was also exercising jurisdiction over South Kanara. This seems to be the last grant of Madhava. The above-referred-to Kuchchar grant of the year 1391 says that king 'Harihara there consulting with his ministers concluded that his Empire would be of short duration if the Prime Minister were not in his own territory. He, therefore, recalled the minister (Madhava), and bestowed on him the throne of Jayantipur (Banavasi), of which he was now the anointed ruler.'<sup>3</sup> We cannot say when this transfer of Madhava took place; most likely in 1389 or 1390. What we conclude from the study of all these inscriptions is that Madhava was for a period of several years—probably from 1380 till 1390—the Viceroy of Āraga, Barakura, Haive and Konkaṇa. The titles he receives in the inscriptions are most honorific: "Harihara Rāya's great house minister";<sup>4</sup> "Madhava Rāya";<sup>5</sup> "Kumara Madhavaswamin";<sup>6</sup> "the great minister, a terror to hostile kings, champion over the three kings, destroyer of the Turuka army";<sup>7</sup> "reducer of the seven Konkaṇas to dust, plunderer of Kadamba, protector of the people of Kadamba-pura, boon lord of Gōvā-pura, Vira Vasanta Madhava Rāya".<sup>8</sup> Two of the sons of Madhava are known to us, Bachaṇa or Bachaṇṇa Voḍēr (Voḍeyar),<sup>9</sup> called also Baichappa,<sup>10</sup> of whom we shall speak again later on. The other son is Mallapoḍer (Mallappa Voḍeyar)<sup>11</sup> who was younger than Bachaṇṇa.<sup>12</sup>

23. *Mallappa Voḍeyar*.—This is the Mahāpradhana mentioned in our inscription. He was the son of Bukka I,<sup>13</sup> and hence younger brother of Harihara II.<sup>14</sup> The first inscriptions recording his activity in the Empire come from the Bangalore District, one of 1355<sup>15</sup> and the other of 1372,<sup>16</sup> both during the reign of his father. The second of these inscriptions states that he 'was ruling the kingdom of the world'. This seems to disclose that during the reign of his father he was in charge of some government in the centre of the Empire, perhaps the kingdom of Penukonda. An inscription in the Chitoor District mentioning a gift for the merit of Mallāṇa (Mallappa) Uḍaiyar,<sup>17</sup> seems to confirm this supposition. The fact is that the same

1. Sewell, *List of Antiquities*, I, p. 238.

2. *Ibid.*

3. *J.B.B.R.A.S.*, IV, p. 198.

4. *Ep. Carn.*, VIII, Tl., 147.

5. *Ibid.*, Sb., 152.

6. 135 of 1901.

7. *Ep. Carn.*, VII, Hl., 84.

8. *Ep. Carn.*, VII, Hl., 71.

9. *Ibid.*, Sk., 288.

10. *Ep. Carn.*, VIII, Sb., 152.

11. *Ep. Carn.*, VII, Sk., 288.

12. *Ibid.*

13. *Ep. Carn.*, III, Tn., 64; IX, An., 82.

14. *Ep. Carn.*, XII, Kg., 43.

15. *Ep. Carn.*, IX, An., 37.

16. *Ibid.*, 82.

17. 480 of 1905.

year of the enthronement of his brother Harihara, 1377, we find him 'governing the Āraga kingdom'.<sup>1</sup> The inscription of this viragal informs us that he 'was governing the kingdom of Haive' in 1380. Whether he retained the Male-rājya or not we are not able to say. But a reply in the affirmative seems most probable, for we find him holding that government some years later.<sup>2</sup> In the same year 1380, according to this viragal, he marched an army most likely on Goa, in the neighbourhood of which the viragal was set up. A Bhatkal copper-plate inscription of 1386 tells us that he was still ruling the kingdom of Haive, 'residing at Honnāvura (Honavar)'.<sup>3</sup> But another inscription of the following year gives more information when stating that he was 'ruling the Tulu-Haive and Konkaya-rājya from the capital Barakuru (Barkur)'.<sup>4</sup> The territory of his Viceroyalty was therefore the newly conquered territory of Goa, North Kanara and South Kanara. He was still the governor of Barakura-rājya in 1389<sup>5</sup> and 1390.<sup>6</sup> During all this time he most likely retained all these three kingdoms, though not mentioned in these local inscriptions, and we think even that his jurisdiction was also extended to the Āraga kingdom, for an inscription of the year 1390 tells us that he 'was carrying on the Āraga kingdom'.<sup>7</sup> This is Mallappa Oḍeyar's last inscription in the west. Hence it seems that he was not Viceroy in the west any longer, being perhaps only the mahāpradhana of the king in his own capital Vijayanagara; for he is shown without any title of governor exercising jurisdiction over distant provinces of the Empire. Thus in 1396 an old irrigation channel which had been blocked up long before, in the village of Pārṇapalle, Cuddapah District, was by his orders restored.<sup>8</sup> Thus another inscription of the Chingleput District records an order of Mallappa Uḍaiyar, 'the pradhāni', issued in 1397, by which he fixes the taxes payable by the eighteen professional castes of Pāḍi-Tiruvallidāyam to the temple of Tiruvallidāyamuḍaiya Nāyanār.<sup>9</sup> As a matter of fact a new governor named Śamkaradēva Oḍeya was at Barkur in 1394.<sup>10</sup> He is in an

1. *Ep. Carn.*, VI, Kp., 19. The inscription speaks only of one.....pa-Rāya, younger brother of Harihara II. I feel sure we must read here Mallappa Rāya. An inscription of 1379 speaks of one 'Mallappa of the treasury'. It is not certain whether this phrase also refers to Harihara's brother. Cf. *Ep. Carn.*, VIII, Tl., 114.

2. Vira Hariyappa Voḍeyar, the son of Manga Rāja (see No. 5), was ruling the kingdom of Āraga in 1380. *Ep. Carn.*, VI, Mg., 58. We suspect he was occupying that post when Mallappa Voḍeyar was absent during the Goa war.

3. *Ep. Ind.*, III, p. 118. The third syllable of the word Mallappa is not clear in this copper-plate. Mr. V. Venkayya reads Mallana, but it seems on account of the circumstances referred to, that the same Viceroy Mallappa Oḍeyar is here meant.

4. 154 of 1901.

5. 164 of 1901.

6. 156 of 1901.

7. *Ep. Carn.*, VII, Sk., 313.

8. 60 of 1912.

9. 221 of 1910.

10. 159 of 1901.

inscription of the following year named Heggade Śamkarāsa.<sup>1</sup> The *birudas* Mallappa is given in the inscriptions are the following:—"Mahāmaṇḍalēśvara, subduer of hostile kings, champion over kings who break their word";<sup>2</sup> "master of the four oceans";<sup>3</sup> One of his daughters was married to her cousin the heir-apparent; thus Mallappa became the father-in-law of the future Emperor Bukka II.<sup>4</sup> A son of this couple bore the same name Mallappa Voḍeyar;<sup>5</sup> he also became a minister of the Empire; in 1421 he is said to be 'ruling the kingdom of the world'.<sup>6</sup> We know four of the sons of Mallappa Voḍeyar (senior): Bukkanna,<sup>7</sup> Timmaṇṇa Oḍeya,<sup>8</sup> Vira Channappa Oḍeyar, who is said in an inscription of the Tumkur District of the year 1380 to have 'obtained a kingdom that had Sīgemāvinahalli in the Hērūr-sthala',<sup>9</sup> and Nārāyaṇa Dēva Oḍeyar, who in the year 1397 established an agrahāra named Pratāpa-Hariharapura 'for the long life, health and wealth' of Emperor Harihara II.<sup>10</sup>

*Note 3.*—Identification of Madhava with Mallappa Voḍeyar.

After careful study and diligent examination of all the inscriptions, the inscription of this viragal being among them, I came to the conclusion that Madhava mantri and Mallappa Voḍeyar are one and the same person. The reasons upon which I base this statement are the following:—

(a) Both Madhava and Mallappa Voḍeyar occupy the same posts and conduct the same campaigns at the same time. The following table will clearly disclose these facts to the reader:—

Years	Events in Madhava's History	Events in Mallappa Voḍeyar's History
1377	First inscription testifying his rule over the kingdom of Āraga	First inscription testifying his rule over the kingdom of Āraga
1379	Continues ruling the kingdoms of Āraga and Gutti	...

1. 112 of 1901.

3. *Ep. Carn.*, IX, Cp., 55.

5. *Ep. Carn.*, IX, An., 86.

6. *Ibid.* There is a difference of sixty-six years between this Mallappa Voḍeyar spoken of in 1421 and the inscription of 1355 that refers to the great minister Mallappa Voḍeyar. *Cf. Ep. Carn.*, IX, An., 87. In the latter inscription he is said to have a son who makes a grant to a temple 'in order that dharma might be to Mallappa Voḍeyar', his father. Evidently the son had to be at least 10 years old. Hence his father could be twenty-five. Now, twenty-five plus sixty-six make ninety-one, an age which is possible, but not probable. Moreover, in 1421, when Bukka II was ruling, to say that Mallappa Voḍeyar was the son of Bukkanna Voḍeyar is evidently the same as to say that he was the son of Bukka II.

7. *Ep. Carn.*, IX, An., 87.

8. *Ep. Carn.*, IX, Cp., 55. He is also mentioned in an inscription of Dēva Rāya, of the year 1419, at Mangalore. 22 of 1911.

9. *Ep. Carn.*, XII, Kg., 43.

2. *Ep. Carn.*, VIII, Tl., 132; IX, Cp., 55.

4. *Ep. Carn.*, X, Gd., 68.

10. *Ep. Carn.*, III, Tn., 64.



Years	Events in Madhava's History	Events in Mallappa Voḍeyar's History
1380	Conquers Goa from the Muslims	Is at the head of a military expedition into the territory of Goa
1380	Exercises jurisdiction over Barakura-rājya (South Kanara)	Is said to be the governor of Haive (North Kanara)
1381	Is ruling at Jayantipura (Banavasi), the capital of the kingdom of Haive (North Kanara)	...
1384	Still retains the kingdom of Āraga or Male-rājya	...
1386	...	Is ruling the kingdom of Haive from Honnāvura (Honavar)
1387	Exercises jurisdiction over Barakura-rājya, and is styled 'Rāya of Goa'	Is ruling the Tulu (South Kanara), Haive and Konkana-rājya (Goa)
1389	...	Is still governing the Barakura-rājya
1390	Is probably removed from the government of Goa	His last inscription as Viceroy in the west.

(b) Mallappa Voḍeyar is known to be the son of Bukka I. Madhava is given many *birudas*, almost as a king, and is called Kumara and even Rāya of Goa.

(c) In the history of the dynasties that ruled the Vijayanagara Empire we often come across sons bearing the names of their fathers or grandfathers. One of the sons of Madhava is called Mallapoḍer, a contraction of Mallappa Voḍeyar. Knowing from the above reasons, specially from reason (a), that Mallappa Voḍeyar and Madhava are the same person, we recognize in Madhava's son's name the same name of his father.<sup>1</sup>

Against this identity there may be two objections:—

*First objection.*—According to the Chandala grant mentioned above Madhava belonged to the Bharadvaja gotra and was the son of Chamunda.<sup>2</sup> Hence he could not belong to the family of Sangama, who were Kshatriyas, and much less could he be the son of Bukka I.

To this we may reply that the poet or engraver of the Chandala grant at Goa was most likely misinformed about the family of the great minister. This is not uncommon in the inscriptions of the same period: in 1382

1. Was this Mallapoḍer II, (the son of Madhava-Mallappa Voḍeyar,) also called Madhava? The fact is that in 1437 one Madhava-mantri is mentioned as the 'chief minister' of Vijaya Rāya. *Ep. Carn.*, III, Tn., 47.

1. *A.S.I.*, *H.C.*, 1920, p. 56.



Mallappa Uḍaiyar is said to be the son of Vīra Machapa Uḍaiyar.<sup>1</sup> Again in 1396 the same Mallappa Voḍaya is mentioned as being the son of Irugappa Dannāyaka, the Jain general of Harihara II.<sup>2</sup> Also in the same year, Madhava's son is said to be 'born in the Ātrēya-kula'.<sup>3</sup> Such mistakes can be attributed either to the poet or to the engraver, but most often to the latter. The Chandala grant, for instance, mentions several Brahmans of different gotras. The engraver, through carelessness or distraction, could omit one line or shift another from its proper place to some lines before, as often happens to us when copying from a book and even much easier when copying a manuscript. The latter in fact was the case of the engraver.

*Second objection.*—Madhava and Mallappa Voḍeyar are two names totally different. Hence they must also be applied to two different persons.

Our reply is as categorical as the objection, but nevertheless founded on facts. From ancient times the Hindu kings bore several titles or names used indifferently by the contemporary writers. Thus the king called Narasiṃha Gupta by the Bhitari seal of Kumara Gupta II or by his own coins, is called Balāditya Rāja by the Chinese pilgrim Hiuen Tsiang. And the sovereign named Harsha by his own inscriptions and by Bāṇa, is known to the same Chinese writer as Śilāditya Rāja. This custom was also prevailing in Vijayanagara especially during the first dynasty. The following tables will disclose this quite evidently:—

#### Names attributed to Bukka I.

Name	Inscription
Bukka	<i>Ep. Carn.</i> , X, Kl., 222.
Bukka Rāya	<i>Ibid.</i> , Gd., 46.
Abhinava Bukka Rāya	<i>Ep. Carn.</i> , VIII, Sb., 102.
Vīra Bukka Rāya	<i>Ibid.</i> , 106.
	<i>Ep. Carn.</i> , X, Kl., 105.
	<i>Ibid.</i> , 201.
Bukka Rājōḍeyar	<i>Ep. Carn.</i> , V, Hn., 19.
Vīra Bukka Voḍeyar	<i>Ep. Do.</i> XI, Dg., 120.
Bukkanna Uḍaiyar	11 of 1900.
Vīra Bukkanna Uḍaiyar	179 of 1913.
	<i>Ep. Carn.</i> , X, Kl., 101.
	<i>Ibid.</i> , 203.
Vīra Bukkanna Uḍaiyar	<i>Ibid.</i> , 12.
	<i>Ibid.</i> , Ct., 75.

1. 190 of 1903.

2. 60 of 1912.

3. *Ep. Carn.*, VII, Hl., 71. The minister Dēvaṇṇa Voḍeyar is said to be the son of Naganna Voḍeyar and of Išvara-dēva. Cf. above No. 9.

Name	Inscription
Vīra Bukkaṇṇa Voḍeyar	<i>Ep. Carn.</i> , VI, Mg., 52. <i>Ep. Do.</i> VIII, Tl., 119. <i>Ep. Do.</i> IX, An., 82. <i>Ibid.</i> , Ht., 118. <i>Ibid.</i> , Kn., 40. <i>Ep. Carn.</i> , X, Mb., 58.
Bukkaṇṇa Voḍeyar	<i>Ep. Do.</i> IX, Cp., 176.
Vīra Bukkaṇṇa Voḍeyar	<i>Ep. Do.</i> V, Hn., 77. <i>Ep. Do.</i> VI, Mg., 52. <i>Ep. Do.</i> VIII, Sb., 17. <i>Ep. Do.</i> X, Kl., 80. <i>Ibid.</i> , 162. <i>Ibid.</i> , Ct., 95. <i>Ibid.</i> , Sd., 112. <i>Ibid.</i> , Cb., 63.
Bukkaṇṇa Oḍeyar	<i>Ep. Carn.</i> , IX, Kn., 93.
Vīra Bukkaṇṇa Oḍeyar	<i>Ibid.</i> , Ht., 157. <i>Ibid.</i> , An., 29.
Vīra Bukkaṇṇa Oḍeyar	<i>Ibid.</i> , Cp., 150.
Vīra Bukkaṇṇa Bhūpāla	<i>Ep. Carn.</i> , X, Ct., 114.
Bukka-bhūpati	<i>Ep. Do.</i> V, Hn., 36.
Bukka-bhūpati Rāya	<i>Ep. Do.</i> XII, Mi., 74.
Vijayabhūpati	6 of 1912-13.

## Names attributed to Harihara II.

Name	Inscription
Vīra Harihara Rāya	<i>Ep. Carn.</i> , VIII, Sb., 134.
Harihara Rāyarasu	<i>Ep. Do.</i> X, Kl., 105.
Hariharanatha	<i>Ep. Do.</i> IX, An., 49.
Hariharēśvara	<i>Ep. Do.</i> V, Hn., 36.
Immadi Hari Rāya	<i>Ep. Do.</i> X, Ct., 12.
Immadi Bukka Rāya	<i>Ep. Do.</i> IX, Ht., 108-9.
Hariyappa Uḍaiyar	483 of 1902.
Hariyappa Voḍeyar	<i>Ep. Carn.</i> , VIII, Sb., 111. <i>Ibid.</i> , 112.
Vīra Hariyappa Voḍeyar	<i>Ep. Carn.</i> , IX, Bn., 139. <i>Ep. Do.</i> X, Sd., 112.
Hariyappa Oḍeyar	<i>Ep. Do.</i> IV, Ch., 64. <i>Ep. Do.</i> X, Ct., 68.
Hariyappa Rāya	<i>Ep. Do.</i> IX, Ht., 113.

Name	Inscription
Hariyaṇa Uḍaiyar	76 of 1908. <i>Ep. Carn.</i> , IX, An., 32.
Vira Hariyaṇa Uḍaiyar	236 of 1906.
Hariyaṇa Uḍaiyar	112 of 1900. 572 of 1902.
Vira Hariyaṇa Rāya	<i>Ep. Carn.</i> , IX, Ht., 154.
Ariyaṇa Uḍaiyar	649 of 1902. 241 and 251 of 1906. 364 of 1908. 312 and 665 of 1909. 299 of 1910. 170 of 1914.
Vira Ariyaṇa Uḍaiyar	239 of 1908. 353 of 1911. 430 of 1913.
Ariyaṇa Uḍaiyar	562 of 1902.
Ariyappa Uḍaiyar	565 of 1902. <i>Ep. Carn.</i> , IX, Bn., 101.
Vira Ariyappa Uḍaiyar	396 of 1906. 75 of 1913.
Vira Ariyarāya	51 of 1913.
Vira Arihara Rāyan	<i>Ep. Carn.</i> , X, Mb., 74.
Ariara Dēva Rāyar	<i>Ep. Do.</i> IX, Ht., 149.
Vijaya Harihara	<i>Ep. Do.</i> XI, Dg., 68.
Vira Mādarasa Voḍeyar	<i>Ep. Do.</i> VIII, Sb., 181.

## Names attributed to Bukka II.

Name	Inscription
Bukka Rāya	669 and 342 of 1904.
Bukka Rāyan	<i>Ep. Carn.</i> , IX, An., 49.
Pratāpa Bukka Rāya	<i>Ep. Do.</i> X, Gd., 6 <i>Ibid.</i> , 68.
Vira Bukka Rāya	12 of 1893. 572 of 1906.
Immadi Bukka Rāya	<i>Ep. Carn.</i> , X, Sp., 54.
Immadi Bukka Rāyan	<i>Ibid.</i> , Mb., 74.
Vira Vijaya Immadi Bukka Rāya	
Oḍeyar	<i>Ibid.</i> , 11.
Vira Vijaya Bukka Rāya	<i>Ep. Carn.</i> , IX, Kn., 59. <i>Ibid.</i> , Ht., 149.

Name	Inscription
Vīra Pratāpa Bukkaṇa Mahārāya	<i>Ep. Carn.</i> , VIII, Tl., 126.
Bukkaṇa Uḍaiyar	356 of 1911.
Vīra Bukkaṇa Uḍaiyar	293 and 297 of 1910.
	422 of 1912.
	<i>Ep. Carn.</i> , X, Mb., 34.
Vīra Mukkaṇa Uḍaiyar	253 of 1894.
Immadi Bukkaṇa Uḍaiyar	<i>Ep. Carn.</i> , X, Bp., 17.
Bukkaṇa Oḍeyar	<i>Ep. Do.</i> IX, Ht., 154.
Immadi Bukkaṇa Oḍeyar	<i>Ep. Do.</i> X, Mb., 12.
Vīra Bukkaṇa Voḍeyar	<i>Ep. Do.</i> IX, Cp., 63.
	<i>Ibid.</i> , An., 81.
	<i>Ibid.</i> , 86.
Virabhūpathi Rāya	358 of 1913.
Virūpāksha Mahārāya	<i>Ep. Carn.</i> , VIII, Tl., 196.
Viththaṇṇa Voḍeyar	<i>Ibid.</i> , 129.

This custom of adopting different names and titles was also common among the princes of the blood royal sent to rule the different provinces of the Empire, as we have seen in the case of Virūpāksha-Viruppaṇṇa-Viṭhaṇṇa.

Such also was the case of Mallappa Voḍeyar, which I take as the original name of the minister. An inscription of 1397 gives him two different names, *viz.*, Mallappa Oḍeyar and Mallinātha.<sup>1</sup> His relationship with Emperor Harihara, the number and importance of viceroyalties entrusted to him and the glorious campaigns carried out by the strength of his arm show that he was the greatest minister of this reign. Harihara I, the uncle of Harihara II, had the privilege of having also a great minister, who was his right hand at the time of laying the foundations of the Vijayanagara Empire. That minister was the great sage Mādhavāchārya Vidyāranya.<sup>2</sup> Hence we suspect that Mallappa Voḍeyar in honour of the great minister of his uncle adopted his name as if declaring that he was a second or a renewed Mādhava. Such seems to be the meaning of Vasantha Mādhava, as he is called in one of the inscriptions. Such practice was customary in the Sangama dynasty. Emperor Mallikārjuna was also called Immadi Dēva Rāya, 'a greater Dēva Raya'.

#### The Campaign mentioned in the Viragal.

The inscription of this viragal records furthermore that Mallappa Voḍeyar marched his army against the enemy and a battle was fought near Madiyagombu. The first question that naturally occurs to the historian is :

1. *Ep. Carn.*, III, Tn., 64.

2. Sewell, *Forgotten Empire*, pp. 19-22. Cf. *Ep. Carn.*, VIII, Sb., 375.

Against what enemies was this war waged? We have pointed out above the many wars made by Harihara, or at least by his generals, during his reign. But the territory over which Mallappa Voḍeyar ruled as well as the place where the viragal is now kept, and even perhaps the individual spot where the viragal comes from, seem to suggest a war waged in Goa or in its neighbourhood. Now the Portuguese chronicler Nuniz says that king Ajarao, whom I identify with Harihara II,<sup>1</sup> 'took Goa, and Chaul, and Dabul'.<sup>2</sup> Was perhaps Mallappa Oḍeyar the generalissimo of the army sent against Goa then in the possession of the Bahmani Sultans of Kulbarga? Ferishta does not say anything about this conquest; but this is not strange, himself being an expert in concealing Mussulman defeats under the veil of silence. He states only the following fact, though chronologically misplaced: "The sea-port of Goa, the fortress of Belgaum, and other places, not included in Carnatic proper, belonged to the Ray of Bijanagar."<sup>3</sup> We have already seen that the conquest of Goa was effected in the year 1380. The battle of Madiyagombu was only an action of the military campaign against the Mussulmans of Goa.

As regards this battle I have not been able to identify Madiyagombu. Probably this village is to be found within the boundaries of Portuguese India. I made inquiries there, but without result. Most likely the viragal itself was erected in the battle-field; but even the memory of the spot where the viragal was originally located seems to be lost at present. I was told only that the viragal comes from the District of Portuguese India called 'Novas Conquistas'.

#### History of Goa under Vijayanagara.

It seems that the conquest of Goa, which did not take place until the reign of Harihara II, was already intended in the time of his father Bukka I; and even some attempt, and indeed a successful one, seems to have taken place then. Perhaps only the southern portion of the Konkan was conquered from the Muhammadans. The fact is that some inscriptions testify that 'when his (Bukka I's) sword began to dance on the battle-field the faces of the Turushkas (Mussulmans) shrivelled up, and Konkana Śaṅkapārya was filled with fear'.<sup>4</sup> Two inscriptions state that this frighten-

1. Sewell, *op. cit.*, p. 48, identifies Harihara II with king Pureoyre Deorao of Nuniz's chronicle. I am sorry to disagree with such an eminent scholar. But apart from the name Ajarao, that resembles much more Harihara, than Pureoyre Deorao, the glorious reign of Ajarao and some of his deeds evidently correspond to the reign of Harihara, the first sovereign who dared to call himself Emperor. Mr. Sewell himself, *op. cit.*, p. 49, acknowledges that 'King Harihara early in his reign expelled the Muhammadans from Goa'.

2. Sewell, *op. cit.*, p. 301.

3. Ferishta-Briggs, II, pp. 337-38.

4. *Ep. Carn.*, V, Hn., 7.

ing effect in the Mussulmans of Konkan was caused 'when he (Bukka I himself) danced about on the battle-field'.<sup>1</sup> Who was this king Śaṅka or Śaṅkapārya that was so terrified at the advance of Bukka's army? This name seems to be a corruption of Shah Gangu, the founder of the Bahmani dynasty. When this war took place we cannot say. In an inscription of 1379 there is another hint to it. It is there said that the minister Depaṇṇa (Devapaṇṇa) Voḍeyar was the 'terrifier of Prithivīpati Rāya'.<sup>2</sup> Now in another contemporary inscription this Rāya is called Prithuvi Koṅgani Mahārāja.<sup>3</sup> Whether by this name the inscription means the Bahmani Sultan then reigning, or a petty chief his subordinate in the surroundings of Goa, it is difficult to say. Perhaps one of the generals that distinguished himself in the course of this early Konkan campaign was Gunda Dandanātha (see No. 6); for in an inscription of 1397 he is said to have set up a pillar of victory in Koṅkaṇa.<sup>4</sup> The only certain thing is that in 1380 the Mussulmans were finally expelled from the Konkan and the city of Goa was captured by Mallappa Voḍeyar *alias* Vira Vasanta Mādhava. Besides the two grants referred to above and the inscription of this viragal, there is another viragal that points to the same campaign. One Baichappa, who most likely was a general, is said to have distinguished himself in the Konkaṇa war and to have 'sent many of the Konkaṇigas to destruction'. He is said by his conduct to have 'gained the heavenly world and attained to the feet of Jina'.<sup>5</sup> An extraordinary reward indeed for a Jaina who is said to have sent many of the Konkaṇigas to destruction!

Mallappa Voḍeyar was, as we saw before, removed from Goa in about 1390. Mr. Sewell speaks of a grant made by the governor of Goa in the name of Harihara in the year 1391;<sup>6</sup> but he unfortunately does not give the name of this governor. He was most likely a Brahman of the Atreya gotra, named Narihari, who was appointed Mallappa's mantri at Goa at the time of his departure.<sup>7</sup> He nevertheless was only a mantri. But in 1396 we find Bāchappa Voḍeyar, the son of Mallappa Voḍeyar-Mādhava, seated 'on the throne of Goa, extending the kingdom on all sides'.<sup>8</sup> This Bāchapa

1. *Ep. Carn.*, VIII, Tl., 201; XII, Tp., 9.

3. *Ep. Carn.*, X, Gd., 47.

2. *Ep. Carn.*, X, Kl., 113.

4. *Ep. Carn.*, V, Kl., 3.

5. *Ep. Carn.*, VIII, Sb., 153. This Jaina chief must be the same referred to in another inscription of the year 1400, as the father of Siriyappa, 'a devoted Jaina'. *Ep. Carn.*, VIII, Sb., 153. In a much damaged inscription of the same year 1380 Mallappa Voḍeyar is mentioned, but without making any reference to the Goa campaign. Cf. *Ep. Carn.*, IX, Cp., 55. In another inscription of the same year Channappa, Mallappa's son, is said to be 'wrestling from the hands of the Yavanas (Mussulmans) the territory they had seized, and presented it as tribute to the King Harihara'. The inscription refers to the conquest of Adavāni-durga (Adoni). *Ep. Carn.*, XII, Kg., 43. Other inscriptions of this date do not refer at all to the Konkan war. Cf. *Ep. Carn.*, VIII, Tl., 167; IX, Ht., 113; An., 29 and 49.

6. Sewell, *op. cit.*, p. 45, n. 2. 7. *J.B.B.R.A.S.*, IV, p. 108. 8. *Ep. Carn.*, VII, Sk., 241.

or Bāchappa receives the following *birudas* in an inscription of the same year:—"Great lord of ministers, the Raṅgini glory, Giridurgga-malla, setter up of Koṅkaṇa, Bāchaṇa Rāya, boon lord of Govāpura". The same inscription informs us that he was 'established in the Kadamba Raja's throne' and 'was ruling the kingdom in peace and wisdom protecting Chandragutti, Banavasi, Konkaṇa, Raṅgini and all the other kingdoms'.<sup>1</sup> He was still 'in charge of the government of Gove (Goa)' in 1399-1400, when he gave the village of Makaravalli to the god Narasimha of Viranarage.<sup>2</sup> This is his last inscription as ruler of Goa. In the year 1413, during the reign of Emperor Dēva Rāya (?II), the governor of Goa was one Nangana Gosavi 'who was clever and prudent in religion'.<sup>3</sup> There comes a gap of 30 years, for the following Viceroy, we know, is Handiya Rāya, son of the treasurer Arasappa, who 'was ruling the Gove Chandragutti kingdom' in 1430.<sup>4</sup> There, in 1445, we find one Mallarasa Oḍeyar ruler 'of Gove Chandragutti'.<sup>5</sup> He must be Mallappa Voḍeyar, son of Mādhava-Mallappa Voḍeyar, who was already ruling the Gutti-durga in 1420.<sup>6</sup> No other name of the Vijayanagara governors of Goa has come to our notice. Goa remained in the possession of the Hindus till the year 1470, when it was reconquered by Kwaja Muhammad Gawan, a general of Muhammad Shah Bahmani II.<sup>7</sup>

#### The Hero of the Inscription.

The hero to whose memory the viragal was dedicated was Timmanāyaka, evidently an abbreviation for Tirumala Nāyaka. He is said to be of Muddakallā near Ranva. I have also been unsuccessful as regards the identification of these two places. Both anyhow seem to be in the Kanarese country. My learned friend, Mr. M. Govind Pai, of Manjeshwar, South Kanara, suggests to me that Muddakallā could be the same as Mudukal or Mudkal, the ancient fort town, now in the Bijapur District. Mudkal nevertheless was a very well-known place, and Muddakallā appears to be less known than Ranva, in the neighbourhood of which Muddakallā is said to be. Timmanāyaka belonged to the household of Mallappa Voḍeyar. He evidently was one of the captains of his army. I cannot find any other trace of this man nor of his three sons. To identify him with one Timmaiya Nāyaka, who gave to the Brahmans the village of Tilaikkarana, apparently in the Tamil country, in 1371,<sup>8</sup> would be a not sufficiently grounded conclusion.

1. *Ep. Carn.*, VII, Hl., 71.

2. *J.B.B.R.A.S.*, XII, pp. 340-41.

3. वागळे, गोमांतकांतील, श्री नगेशदेवस्थानाचा सचित्र इतिहास, p. 16. (Bombay, 1913.)

4. *Ep. Carn.*, VII, Sk., 40.

5. *Ibid.*, 36.

6. *Ibid.*, 288.

7. *Ferishta-Briggs*, II, p. 485.

8. 511 of 1913.

## Text of the Inscription.

1. .... ಶಯೇನಮಃ | ನಮಸ್ತುಂಗ ಶಿರಶ್ಚುಂಬಿ ಚಂದ್ರ ಚಾಮರ  
ಚಾರವೇ | ತ್ರೈಲೋಕ್ಯ
2. ....ಂಭವೇ | ಶ್ರೀ ಮನು ಮಹಾರಾಜಾಧಿರಾಜ ರಾಜ  
ಪರಮೇಶ್ವರ
3. ....ಅರಿರಾಯ ವಿಭಾಡ ಬಾಸಗೆ ತಪ್ಪುವ ರಾಯರ ಗಂಡ  
ಶ್ರೀ ವೀರಹರಿಹ
4. ....ವೀಡಿನಲು ದುಷ್ಟ ನಿಗ್ರಹಂ ಶಿಷ್ಯ ಪ್ರತಿಪಾಲನಂ  
ಮಾಡಿ ಸುಖಸಂಕತಾ ವಿನೋದದಿಂ
5. ....ಮಹಾಪ್ರದಾನಂ ಮಲಪ್ಪೊಡೆಯರು ಹೈವಯ  
ರಾಜ್ಯವನು ಪ್ರತಿಪಾಲಿಸುತಂ ವಿದ
6. ....ರೌದ್ರಿ ಸಂವತ್ಸರದ ಭಾದ್ರಪದ ಬಹುಳ ೧೪ ಬುಧವಾರ  
ಮಲಪ್ಪೊಡೆಯರು ತಮ
7. ....ರರು ಕಾಳಗತಿ ಸಮರ-ಸಂನದ್ಧರಾಗಿ ನಡೆದು  
ಮಡಿಗೆಯಗೊಂಬಲಿ ಆ
8. ....ಂದ ಯೆರದು ದಳವುಂ ಕಾದಿದಲ್ಲಿ ಮಲಪ್ಪೊ  
ಡೆಯರ ಮನೆಯ ಕಳುವಣಂ
9. ....ರಾಣುವ ಬಳಿಯ ಮುದ್ದಕ್ಕಲ್ಲ ಬಳಿಯ  
ತಿಮನಾಯಕರು
10. ....ರಣದೊಳಗೆ ಬಿದ್ದು ಸ್ವರ್ಗೈಸ್ಮನಾದನು | ಇವರ  
ಗಲ್ಲಂ ಕಡೀಗನಿ ಪ್ರತಿಷ್ಠೆಯನು
11. ....ಯಕನ ಮಕ್ಕಳು ಮುದ್ದನಾಯಕ ಬಿರನಾಯಕ  
ಕುಮಾರನಾಯಕ ಯ ಮೂರು
12. ....ಕಾರಲಿ ಮಾಡಿ ನಟ್ಟಿ ವರಪ್ರತಿಷ್ಠೆ || ೩ ವೀರಗಲ್ಲ  
ಮಾಡಿದಂ ಅನಮಂದಾಚಾರಿಯ

## Transliteration of the Inscription.

1. [Gaṇādhīpa] tayē namah | namastunga-sīraschumbi-chandra-  
chāmara-chāravē | trāilōkya.....
2. ....[Ś] ambhavē | sṛīmanu mahārājādhīrāja-rājaparamēśvara...
3. ....arirāyavibhāda-bāshege tappuva rāyaragañda Śrī Vīra  
Hariha.....
4. ....viḍinalu-duṣṭtanigraham śiṣṭapratipālanam-mādi sukha-  
samkatāvinōdadim.....
5. ....Mahāpradhānam-Malappoḍeyaru Haiveya-rājyavanu-prati-  
pālīsutaṃ vīda [li]
6. ....Raudri samvatsarada-Bhādrapada bahula 14 Budhavāra-  
Malappoḍeyaru-tamma



7. ....raru-kālegake samara-sannaddharāgi-naḍedu Maḍigeya-gombali ā Bankā.....
8. ....nda yeraḍu-daḷavaṃ iṇḍāḍiḍalli Malapoḍeyara-maneya-kaluvaṇaṃ
9. ....ya (?) rāṇuva-baḷiya-Muddakalla baḷiya Timmanāyakaru.....
10. ....raṇadolage-biddu-svarggastha-nādanu i viragallam hoyisi pratistheyanu
11. ....yakana makkaḷu Muddanāyaka Biranāyaka Kummaṇṇa nāyaka yi mūru
12. ....kārali māḍi-naṭṭa vira pratisthe " Yi viragalla māḍidaṃ Anamaṇḍāchāriya

#### Translation of the Inscription.

Salutation to [Ganapati]. Salutation to Śambhu. While the illustrious king Vira Harihara, mahārājādhirāja, rājaparamēśvara, destroyer of hostile kings, champion over kings who break their word, was ruling in peace and wisdom, punishing the wicked and protecting the righteous from his residence at..... While the mahāpradhāna Mallappoḍeyar was governing the kingdom of Haive :—

On Wednesday, the 14th lunar day of the dark half of Bhādrapada in the year Raudri, Mallappoḍeyar went to war and a battle took place near Madiyagombu ; and Timmanāyaka of Muddakallā near Ranva, belonging to the household of Mallappoḍeyar, died in battle and attained heaven. His sons Muddanāyaka, Biranāyaka and Kummaṇṇanāyaka caused this viragal to be engraved and set it up. Anamandāchārya engraved this viragal.

## THE HINDU ARABIC NUMERALS.

BY A. A. KRISHNASWAMI AYYANGAR, ESQ., M.A., L.T.

(Continued from Vol. XVIII, No. 4.)

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### CHAPTER IV.

The Development of the Numeral Systems in India:

The Decimal Notation. The Abacus and the Symbol for Zero.

ONE noteworthy feature of the development of the numeral notation in India is its progressive continuity\* and growth—one system leading on to the next and getting itself absorbed in it, imbibing new life partaking the essential principles of the old and the new. We have seen how the iterative and additive notation of the Kharoshti numerals lent as it were its first four symbols to the Brahmi notation and got merged in it. Again, the Brahmi numerals did not advance further than a few hundreds, since the word-numeration developed alongside of it with the place-value principle and arrested the growth of the non-positional notation. Otherwise, we should have had, even in India, a kind of extension of the non-positional notation with a periodic principle corresponding to that of the alphabetic notation of the Greeks with the dashes and dots for numbers greater than 1,000. Witness also the two-fold alphabetic notation, one before the invention of the decimal notation and another after it, utilizing the positional principle and the zero. There has been also similarly a two-fold word-numeral notation, one non-positional and the other positional distinguished by the way in which the Dwandwa compounds (containing the numeral names) were dissolved, the one by 'or' and the other by 'and', the latter presupposing the existence of the decimal notation (*vide* Buhler's *Indian Palæography*).

When the decimal notation with its nine figures and a symbol for zero was actually invented is a matter enveloped in deep mystery. When the word-numeral notation was in full swing, the Brahmi symbols were ready at hand to be utilized for the purpose and only one new symbol had to be invented, that is, for zero. The word शून्य or its metaphorical equivalent आकाश (the spherical vault of the heavens) denoting the absence of a power of ten in the word-numeration should have easily suggested the symbol '0'. Probably an earlier or an alternative form of this symbol is the dot symbol mentioned in Subhandu's *Vasavadatta* and also in the *Bakhshali Manuscript*.

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\* There is nothing like it in the notations of other nations; for example, there is hardly any point in common between the earlier Attic notation and the later Greek alphabetic notation.

In Subhandu's *Vasavadatta*, we read—

विश्वं गणयतो विधातुः शशि कठिनी खण्डेन तमो मर्षाश्यामे अजिन इव वियति संसारस्याति-  
शून्यत्वात् शून्यविन्दव इव विलिखिताः ।

Here the author brings together in a suggestive simile, mathematics, poetry and philosophy in a truly Indian fashion; the passage bears an important testimony to the zero-symbol in vogue in the author's time, which has been fixed by scholars to be probably between 540—570 A.D.

Again, in the *Bakshali Manuscript* whose date has been variously fixed between the fourth and the tenth centuries A.D., there is a clear mention of the decimal notation with nine symbols<sup>35</sup> \* and the *dot zero*. (It is very curious that these symbols bear some analogy to the Kanarese and Telugu numerals.)

In Vyasa's Commentary upon Patanjali's *Yoga Sutras*, the characteristic feature of the position value of the numerals in the decimal notation is brought in by way of elucidating a philosophical point.† We quote below from Ramaprasada's translation of the Bhashya of Patanjali's *Yoga Sutra* (Chapter III, 13) :—

एतेन भूतेन्द्रियेषु धर्मलक्षणावस्था परिणामा व्याख्यातः ।

'It is not the characterized object that is possessed of the three paths of being. It is the characteristics that are possessed of the three paths. They may be visible or latent. Of these the visible ones assume different conditions and are termed accordingly differently, because the conditions are different and not the substance. This is in the same way as the figure of '1' means '10' in the tens' place, '100' in the hundreds' place and '1' in the units' place. Or again, a woman although one is called a mother, a daughter, and a sister.....'

The *Vyasa Bhashya* cannot have been composed later than the sixth century A.D. The decimal system was therefore known to the Hindus long before it appeared in the writings of the Arabs or Græco-Syrians.

The Hindus called the decimal notation अङ्क पद्धि, the word अङ्क literally meaning a mark or a symbol. In the word-numeral notation adopted by Varahamihira (sixth century A.D.) and others, the word अङ्क is used to express the numeral 9 (*vide Panchasiddhantika*, 18, 33) signifying that nine and not ten numerals were in common use. Probably the symbol for zero had not then been invented (or though invented, not recognized as a numeral); but by the ninth century at least, all the ten symbols should have been perfectly well established. Thus it becomes significant that in the prefatory

\* *Vide Appendix to this article, in Vol. XVIII, No. 4, of this Journal.*

† The discovery of this reference in *Vyasa Bhashya* is due to Dr. Sir Brajendranath Seal who has also discovered similar references in Buddhist authorities earlier than sixth century A.D., which Prof. Scherbatsky has now traced. These references alone are sufficient to settle finally the priority and the originality of the Indian notation.

chapter of Mahavira's *Ganita Sarasangraha*,\* a work of the ninth century A.D., there occurs a list of equivalents, in the word-numeral system for only ten numbers viz., the numbers from 1-9 in order and lastly zero. Mahavira did not think it necessary to give the equivalents for higher numbers as they were obviously superfluous in the decimal notation.

In connection with these ten numerals of the new notation, a rule sprang up (the date of which is unknown), 'अंकानां वामतो गतिः' that is, the order of the numerals is from right to left. We do not know whether this rule refers to the order in writing or to any arrangement adopted in some form of abacus in use in early times. Mr. Dikshit tells us (*vide Indian Antiquary*, XX, 54) that Hindu astrologers were using a wooden calculating board called पाटी and hence the name पाटी गणित for Arithmetic. Warren in his *Kalasankalita* makes mention of Indian almanac makers computing eclipses, scoring their quantities with shells instead of writing them in figures. Unfortunately none of these practical methods of computation have been recorded in any of the known Hindu arithmetical treatises. This is probably to be expected, since the treatises are intended to supply only the theoretical and scientific basis for the practical methods of computation while the mechanical methods of computation with shells, etc., were probably handed down orally from generation to generation.

In Gow's *History of Greek Mathematics*, we find the dictum 'The Cipher is yet to be invented before the abacus can be discarded'. Since there is reason to believe that the Hindus generally reckoned on a board covered with sand, and the symbol for zero was invented probably some time later than the other nine symbols which were directly taken from an earlier non-positional notation, some palpable aid to reckoning like the abacus may have been in vogue (in accordance with Gow's dictum) in the transitional period, i.e., from the quasi-positional to the definitely positional notations. Further, an actual need for such an adventitious device as some form of abacus may have been felt by the early Hindu astronomers, who at least from the fifth century A.D. began to calculate with huge astronomical constants.

The essence of the abacus was the arrangement in columns which were marked off by lines and allocated to the successive denominations of the numerical system in use. The number of units of each denomination was shown in each column by means of pebbles, buttons, or the like. We have hardly any details of the Indian abacus as we have of the Chinese swan-pan, the Japanese soroban, and the Roman abacus, though the use of a tray strewn with sand and the use of pebbles to reckon with have been attested by many

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\* *Vide* pp. 6, 7 of the Sanskrit Text of the *Ganita Sarasangraha* of Mahaviracharya edited by M. Rangacharya, Madras, 1912.

writers. There is a curious parallel to this state of things among another intellectual nation, the Greeks; for we learn from Dr. T. L. Heath that there is very little evidence as to the actual use of the abacus in Greece. Probably the abacus with its 'tableau colonne' is an invention of a less mathematically gifted race, and a sort of mental abacus must have sufficed for the Greeks or the Hindus. Indeed even in modern times, some such device as the abacus is employed in schools to explain the place-value notation to young children.

Some light is thrown on this question of the use of the abacus in India by Dr. Fleet in his article "The Use of the Abacus in India" (*J. R. A. S.*, 1911). He draws attention to the following passage which perhaps belongs to the first century A.D.:—सभूरिको गणित्रे (कीर्तितः ?) श्वेतवर्णं गृहीत्वा गणयितुमारब्धः ।

May not the word गणित्र in this passage, on the analogy of खनित्र, लवित्र, etc., mean an instrument such as some form of abacus to reckon with?

One of Mr. Kaye's *a priori* postulates is that the value of position and the invention of zero were so obviously derived from the use of the abacus. At any rate, in India, the abacus need not have led to the zero but rather the peculiar Hindu system of numeration which gave, in order, the number of units, tens, hundreds, etc., in a number.

From very early times, the Sunya had acquired a special significance in India, not found in the Greek or other ancient arithmetics of Europe. Brahmagupta, living in early seventh century, treats of the results of the four fundamental operations with zero and the *Ganita Sarasangraha* of the early ninth century gives similar discussions of calculations with zero. Probably the zero must have been perceived even in the early stages of Arithmetic as a result of subtracting a number from the same number; and very likely the ideas of धन, ऋण and शून्य (+, — and 0) flashed to the Indian mind simultaneously, being suggested by the familiar fact that a man becomes wealthy by spending less than what he earns, or indebted by spending more, or *penniless* (as suggested by the words रिकहस्त, or शून्यहस्त) by living from hand to mouth (i.e., spending all he earns). Besides, the Sunya displayed an important rôle in Indian Philosophy which preached incessantly the *Maya* or the emptiness of the world. Smith and Karpinski have well said, regarding the Indian invention of the zero, that this making of nothingness the crux of a tremendous achievement was a step in complete harmony with the genius of the Hindu.

There is also another circumstance which emphasizes the fact that the zero or the dot was originally used by the Hindus for any kind of blank. In the *Bakhshali Manuscript*, the dot symbol for zero is used to denote the unknown or absent quantity\* as well as zero. This shows the Hindus'

\*An analogous use of the zero, for the unknown quantity in a proportion, appears in a Latin manuscript of some lectures by Gottfried Wolack in the University of Erlang in 1467 and

true insight into the purpose of the symbol, viz., to denote any absent or non-existent quantity, whatever the absence or the non-existence may be due to. That the Arabs did not understand the uses of zero is borne out by the occasional use by Al Battani, a famous Arabic astronomer, of the Arabic negative *lâ* to indicate the absence of minutes or seconds. There is also evidence that many writers in Europe were using the symbol for zero in some form or other between the twelfth and the fourteenth centuries, but without understanding its true import.

What suggested the form for zero is purely a matter of speculation. The dot symbol was frequently used by the Hindus to fill up gaps in their manuscripts and so might have been thought of for the purpose of indicating also an absent quantity in mathematics. Smith and Karpinski inquire whether the fact that the early European Arithmetic following the Arab custom always put the '0' after the nine symbols 1-9, suggests that the smaller circle 'o' was derived from the old Hindu symbol,<sup>37</sup> a spurred circle for ten. The popular Indian use of the formula  $\sqrt{10}r^2$  (where  $r$  is the radius) for the area of a circle may also be significant in this connection. Again, from Dr. Shama Sastry's thesis on the origin of the Devanagari alphabet (*Indian Antiquary*, 1907, p. 22), we learn that the rôle of the dot symbol (दिन्दुर्वर्तुलाकारः) is very prominent in the Tantric Hieroglyphics, which in the Doctor's opinion may have been the basis of the Sanskrit alphabet. May I suggest that the Tantric dot symbol was probably pitched upon by the Hindus for their last numerical symbol even as the visarga, the double dot (:), marked the close of the vowel series? The circle symbol in India replaced the earlier dot symbol, which came to be used later in other contexts. In *Bhaskara*, we find the dot above a number indicating that it is negative.

The name of this all-important symbol deserves a little notice. It is commonly accepted that the Hindu 'Sunya' passed over into the Arabic as as-sifr or sifr, which Leonardo called zephirum in his book *Liber Abaci* on the Hindu numerals. Maximus Planudes, writing under the influence of both the Greeks and the Arabs called it 'tziphra'. In the Italian arithmetic of the fourteenth century, it became zeuro and geuro, which led to the modern zero. The English cipher and the French chiffre are also derived from the same Arabic word as-sifr. Owing to the resemblance of the circular form '0' to the Greek letters Theta and Omicron and also to several objects such as the wheel and the circular iron used to brand thieves with in mediæval times, the symbol was also called by such names as 'theca', 'Omicron', the wheel, circulus, etc. But the common name was, of course,

1468. The usage was noted even as late as the eighteenth century.—*The Hindu Arabic Numerals*, by Smith and Karpinski, pp. 53, 54.

cipher. Wallis, in his *Opera Mathematica*, was one of the earliest to discuss the derivation of this word, giving the following variations ziphra, zifera, siphra, ciphra, tsiphra, tziphra, etc.

#### The Katapayadi Notation.

Not content with the decimal notation with its nine numerals and zero, the Hindus, with their usual fondness for the alphabetic notation on account of its singular adaptability to literary form, soon began to revise their old notation in the light of the new positional invention.

In the *Mahasiddhanta* of Aryabhata (II) a work of the twelfth (?) century, the notation is defined thus :—

रूपात् कटपयपूर्वी वर्णा वर्णक्रमाद्भवन्त्यङ्काः ।

न्वौ शून्यं प्रथमार्थे आ छेदे ऐ तृतीयार्थे ॥

According to this notation, the consonants were given values as follows :—

1	क, ट, प, य
2	ख, ठ, फ, र
3	ग, ड, ब, ल
4	घ, ढ, भ, व
5	ङ, ण, म, श
6	च, त, ष
7	छ, थ, स
8	ज, द, ह
9	झ, ध, ङ
0	ञ, न.

In this notation, the numeral letters read from left to right and not from right to left as in the word-numeration. This shows that the scheme is based on the decimal notation and not upon the old numeration.

*Example* :—The number of revolutions of the Sun (*i.e.*, of the earth, really speaking) in a Kalpa is

घ ड फे न ने न न नु नी नाः  
4 3 2 0 0 0 0 0 0 0



Here the vowels have no significance. This latitude as well as the alternative consonants for the same number are intended to satisfy the exigencies of metre and metrical euphony.

There is another modified form of the above notation which secures better metrical euphony and literary effect (than Aryabhata's system) by its pun and other suggestive associations. It serves also as a better mnemonic, not being a jumble of artificial syllables but a set of significant words suited to the context. The dates (in Saka Samvat) of birth and death of the famous religious leader of South India, Sri Ramanuja, are given by the suggestive phrases :

धीर्निष्ठा = 939 (Wisdom is born (achieved) )

धर्मोन्मत्तः = 1059 (Virtue is dead)

In this scheme, the last letter alone of a conjunct consonant has a numerical significance and the letter numerals read from right to left as in the word-numeration. This embodies all the fundamental principles of the earlier notations and illustrates, once again, the characteristic continuity in the Indian development.

Mr. Whish in the *Transactions of the Literary Society of Madras*, Part I, 1827, p. 60, has cited a work entitled *Sadratnamala*, as telling us that the circumference of a circle whose diameter is one parardha or  $10^{17}$  is expressed in the above notation by

भद्राम्बुधि सिद्धजन्मगणित श्राद्धाश्म यद्भूतपगीः ।

(3.14159265358979324).

This shows us the possibilities of this kind of notation. The notation in the above form is very popular, even now, in India and Burma.

One of the advantages of the alphabetic notation which was early recognized by the Hindus and which accounts, to some extent, for its popularity is that it does not admit easy alteration, as the figures do, since any change would affect the sense as well as disturb the metre.

## CHAPTER V.

### The Claims of the Arabs to the Invention of the Modern Numerals :

#### The March of the Numerals to Europe.

In his *Indian Mathematics*, a very misleading work on the subject, Mr. G. R. Kaye hints at the Arabic origin of the numerals in the following words:—

'Further, there is evidence that indicates that the notation was introduced into India, as it was into Europe, from a right to left script.'

We elsewhere refute Mr. Kaye's arguments regarding the derivation from a right to left script and content ourselves here with the remark that such arguments as his would apply quite as well to the Roman and Greek systems as to any other.



Before Mr. Kaye, such influential writers as Tartaglia in Italy and Koebel in Germany had asserted the Arabic origin; but the Arabs themselves never laid claim to the invention and there was, indeed, for a long time, a struggle among them between the Hindu numerals and the indigenous Arabic ones, just as there was no love lost between the algorists and the abacists in Europe in the middle ages. (This is a clear evidence to show that the Hindu numerals were foreign to these lands.) We learn from Ali ibn Ahmed al-Nasawi's arithmetic of c. 1025, that the number-symbolism was still undecided in his day, most people preferring the strictly Arabic forms. Besides, the Arabs had no number names beyond one thousand and it is very unlikely that such a nation could invent a place-value system.

It is not known, however, when the Arabs really came across the Indian numerals. We are told that about 156 A.H. (772 A.D.) during the reign of one of the Abbasides, an Indian traveller brought to Bagdad a treatise on Arithmetic and another on Astronomy and that these treatises have been translated into Arabic. Probably the Indian numerals were introduced among the Saracens at this time along with the Astronomical Tables. Before this time, the Arabs had no numerals. They were writing numbers in words, and in some places, adopted for convenience the notation of the conquered lands. They had also an alphabetic notation on the analogy of the Greek system. But when the Hindu notation once stepped in, its advantage over the other systems was immediately recognized and it soon became popular with merchants and arithmetical writers. For over five hundred years Arabic writers and others continued to call their works on Arithmetic, 'Indian' or 'Hindu'.

The first Arabian writer to whom the world owes its first algebra, Mohammed ibn Musa Alkhowarizmi of the eighth century distinctly acknowledges in his Arithmetic the debt to the Hindus in the matter of the numeral notation. The Arithmetic of Khwarizmi 'excels all others in brevity and easiness and exhibits the Hindu intellect and sagacity in the grandest inventions.' So says an Arabic writer (*vide p. 102, Cajori's History of Mathematics, 1919*).

In early eleventh century, Alberuni who is considered as a phenomenon in the *History of Eastern Learning and Literature*, refers to the Hindu numerals अङ्क, occurring in different shapes in different parts of India. In his *Chronology of Ancient Nations* translated by Sachau, we find (on p. 64) the following statement:

'If we reduce this cycle of 19 years (*i.e.*, 6939 days  $16 \frac{595}{10800}$  hours) to fractions and change it into halaks, we get the following sum of halaks:—

179, 876, 755 expressed in Indian ciphers.'

A man of Alberuni's reputation, who had much of the modern spirit and method of critical research, would not have blindly believed in mere

tradition and attributed the new numerals with the place-value system to Hindu sources.

Again in the first half of the fourteenth century, we find that Maimus Planudes, a French monk, following the Arabic custom, called his work Indian Arithmetic. So late as the sixteenth century Baha Eddin, the writer of a compendium of Arithmetic *Kholaset al-hisab*, says: 'Learned Hindus have invented the well-known nine figures for them.' Another interesting, though bizarre, reference to the Brahmin origin is that of the Arabic astrologer Aben Ragel of the tenth or eleventh century. He held that the Brahmins derived their numerals from the figure of a circle with two diameters.

From numerous such evidences as the above in the *History of Arabic Literature and Mediæval European Works* based on Arabic learning, Smith and Karpinski are able to conclude forcibly that the Arabs from the early ninth century onwards fully recognized the Hindu origin of the numerals. We shall discuss in the next chapter the opposite view held by Mr. G. R. Kaye who asserts that the Arabic words 'hindi', 'hindisa' and 'hindasi' have been misinterpreted as 'Indian' and that the mediæval references to India do not indicate 'India proper' but often simply 'the East'.

One important evidence tending apparently to support the non-Hindu origin of the modern numerals is the total absence of any reference to them in the arithmetical works of some of the eminent Arab mathematicians of the tenth century. Abu'l-Wefa (940-998 A.D.) wrote an arithmetic which entirely ignores Hindu numerals. Alkharki, an Arabian algebraist of the 10-11th century wrote an algebra under the title *Al Fakhri* which contains an exposition of the methods of Diophantus and little whatever of Hindu Indeterminate Analysis; an arithmetic by the same author, again, is constructed wholly after the Greek pattern and excludes the Hindu numerals. According to Cantor and Heath, there were probably two schools, one of which favoured the Greek and the other the Indian methods.\*

According to Smith and Karpinski, the Arab, by himself, never showed any intellectual strength and they give this as one of the reasons for not ascribing too much credit to the purely Arab influence. But, when the Arab culture joined the Persian and an empire was set up at Bagdad, which enjoyed a favourable position, more or less midway between the two great old centres of scientific thought,—Greece in the west and India in the east,—the Saracens, possessing the virility of a new and victorious people, became the custodians of scientific thought with their natural taste for learning and absorbing new ideas whether it be in poetry, philosophy, or mathematics. They had further the

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\* Probably, the references in many of the Arabic texts of Geometricians and Arithmeticians apply respectively to the Greeks and the Hindus.

good fortune to possess rulers, who took pride in demanding intellectual, rather than commercial, treasure from the conquered people and were munificent patrons of learning whose courts were often adorned by scholars of different countries, irrespective of caste or creed. Not the least of the services of the Saracens to science consisted, as Cajori says, in that they adopted the learning of Greece and India and preserved what they received with care. When the love of science began to make itself felt in Europe, they readily transmitted the ancient learning to the Western countries. Possessing, as they did, an empire, which was 'an ellipse of learning' surrounding the Mediterranean basin with one focus in Europe and another in Asia, they became easily the connecting link between the East and the West and spread knowledge from cultured Asia to Mediæval Europe where learning was at its lowest ebb.

It was probably in the twelfth century, through Leonardo's monumental works that the Hindu science definitely passed to the Europeans from their Saracen masters. But even before the scholar, there are evidences to show that the busy travellers and merchants travelling all the great trade-routes from the East to the West and back must have carried with them a knowledge of number systems used in recording prices or in reckoning in the market and spreading them in different countries. Thus, no numeral-system of the world could long have remained isolated and a convenient notation like the Indian one soon attracted the attention of the commercial world even before any scholar attempted to write a treatise on it.

As early as the tenth century and even before, a form of Indian numerals without the zero, called Gobar or dust numerals was current in Europe, and Gerbert, a French scholar and monk of the tenth century, speaks of these numerals, though he could not appreciate them and employ them in the place of the Roman forms. The one improvement which was effected by the knowledge of Gobar numerals in Gerbert's time was the substitution, in the abacus, of apices marked 1, 2, 3, etc. in the place of as many Roman jecons or counters. We are told that the name 'apices' adhered to the Hindu-Arabic numerals (so called because they had their origin in India and were transmitted to Europe through the Arabs) until the sixteenth century and that the several names given to the figures indicate their Semitic origin.

Between the time of Gerbert and that of the appearance of the *Liber Abaci* of Leonardo, based on Musa's Arithmetic, there were two opposite schools of reckoning, one of them advocating the abacus and calling the other notation by the nickname of 'algorithmia ciphra' (i.e., a useless notation, because it involved the zero, a thing having no value). Indeed, the zero was unnecessary on the abacus, which, in my opinion, is no more positional than the notation current among the Burmese even to-day. For, where is the

difference between writing 300105 as the Burmese do or  $\frac{100}{8} \frac{10}{1} \frac{1}{8}$  as in the abacus for '315'?

The contempt which the abacists had for the zero is an indication that they, when left to themselves, would never have invented any symbol for zero. It must be impossible for a European abacist to conceive of such a tangible thing as one of their apices being set apart to denote 'nothing' or 'a blank' in the abacus.\* This historical fact proves clearly the falsity of the premise 'The value of position and the invention of the zero are so obviously derived from the abacus', on which rests a good deal of Mr. Kaye's argument for the non-Hindu origin of the modern numerals.

In the eleventh century, a new activity in religion came about and with it a new interest in the algorisms, chiefly through the introduction of Arab learning. Arabic works were translated and contributions on arithmetic explaining the new algorism were made by a prominent Spanish Jew called John of Seville (?-1157 A.D.) and also by one Gherard of Cremona (1114-1187 A.D.). In the twelfth century the Englishman Adhelard of Bath translated into Latin Alkhowarizmi's Astronomical Tables from Arabic and Robert of Chester translated Alkhowarizmi's algebra. These men must thus have become familiar with the numerals that the Arabs were using. In the same century, one Rabbi Abraham wrote *Sefer ha-Mispar*, the Book of Number in the Hebrew language. In this book the Hebrew alphabet<sup>39</sup> with place-value is used for the numerals and a circle for zero; and the author acknowledges the Hindu origin.

But the greatest impetus that was given to the spread of the Hindu numerals in Europe was due to the great Italian mathematician Leonardo Fibonacci, who was born in the golden age of Pisa, when it was at the zenith of its commercial, religious and intellectual prosperity. Leonardo was a great traveller who had visited Egypt, Syria, Greece and other countries round about the Mediterranean, met scholars and merchants and imbibed from them a great deal of the numeral lore. He regarded all other numeral systems almost as errors (*quasi errorem*) compared with that of the Hindus. After his return to Pisa, he wrote his *Liber Abaci* in 1202 and rewrote it in 1228. The work was too difficult and learned for the merchants and too novel for the conservative Universities, while the times were unfavourable for the easy spread of knowledge. Still, as Pisa was a great intellectual centre drawing diverse foreign students to Italy—Bohemians, Poles, Frenchmen, Germans, Spaniards and others—the knowledge of Leonardo's text could not fail to spread.

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\* It is possible, however, for a Hindu philosopher to do so: for the world of material objects is to him a huge nothing, an unreality, a hallucination due to 'ignorance' (अज्ञान). The converse process of denoting 'nothing' by a material symbol is quite in a line with his mental attitude.

Meanwhile the popular treatises of Alexander de Villa Dei and John of Halifax did their share of the work in introducing the new numerals to the common people. It was probably due to the extended use of these popular treatises, especially that of John of Halifax (otherwise known as Sacrobosco), that the term Arabic numerals became common. In Sacrobosco's work, this science of reckoning is attributed to a philosopher Albus and reference is made to the Arabs as the inventors of this science. While some of the commentators, notably Petrus de Dacia, knew of the Hindu origin, they left the text as it stood and thus it came about that the Arabs were credited with the invention of the system.

Though the new numerals were fairly well-known in Europe by the thirteenth century, they had to wait till the sixteenth century to be generally used in business and in the schools. But they were used from time to time in dating manuscripts and in monuments. For various details in the development of the forms of the new numerals in the various parts of Europe during the last thousand years, we would refer the reader to G. F. Hill's work—'The Development of the Arabic Numerals in Europe, Oxford 1915'.

Only one point, however, deserves mention, viz., the use of the various anomalous forms \* in Europe during the transition period from the Roman to the so-called Arabic numerals. For example, in the fifteenth century, we have

(i) a mixture of the Hindu and the Roman numerals :

E.g. MCCCC 811=1482.

(ii) a mixture of the positional and the non-positional notations, e.g. 12901=1291; in a manuscript of the Plimpton collection (vide D. E. Smith's *Rara Arithmetica*, p. 444) the date 1000 300 80 4 is given for 1384.

Such anomalous forms as the above have their parallel in India also. In Buhler's *Indian Palæography*, an instance is quoted of a Chicacole copper-plate inscription where the year 183 is represented by the Brahmi symbol for 100, the decimal 8 (for 80) and the syllable *ले* (for *लेक*=3) and the day of the month is given as '20' in decimal figures.

Such parallelisms as the above point the moral to such critics as Mr. Kaye † that human nature is the same everywhere and the differences that may be observed are not more than skin-deep.

(To be continued.)

\* For examples of the mixture of 'Arabic' with 'Roman' numerals, vide pp. 468, 469, *The Mathematical Gazette*, Vol. XII, No. 178, October 1925.

† Critics like Mr. Kaye make much of such parallelisms and rush to the conclusion that the later of two parallel developments is a copy of the earlier (vide p. 97, *Cajori's History of Mathematics*, 1919). Numerous instances of such prejudiced arguments advanced by Mr. Kaye are reviewed in the next chapter.

## ANTS AND FOLK-BELIEFS IN SOUTH INDIA.

BY S. T. MOSES, ESQ.

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FROM antiquity ants, with their social, orderly and active habits, are the types of industry, prevision and frugality. King Solomon commends the sluggard to go to the ant and Muslims have honoured Solomon's ant with a place among the ten animals admitted into the Paradise of the Faithful. The harvesters or granary ants which instinctively gather rice and other seeds of grasses in their nests and lay up great stores in their galleries are mainly responsible for making the ant which, according to Solomon, 'provi-deth her meat in the summer and gathereth her food in the harvest' symbo-lise frugality—Æsop makes the ant drive the grasshoppers away with the admonition 'those who drink, sing and dance in summer must starve in winter'—and prevision. The nest of granary ants is easy to find as there is a ring of chaff all round and many roads—ants are able to beat tracks so well that a Tamil proverb says 'the constant goings and comings of the ants are enough to wear away even stones'—lead to it. The ant granaries contain comparatively large quantities of ant-grain, called in Tamil 'grass-rice', that in times of famine Adi-Dravidas, etc., dig up the rice and use it. This appropriation of the ants' labours is looked upon with horror by some of the higher caste people who consider it an act of great merit to visit ant-holes on roadsides, etc., and to put in each a liberal supply of rice or other grain.

When ants migrate, it is a common sight to meet workers carrying the little white larvæ and pupæ usually miscalled "ants' eggs". Ancient Hindu writings aver that all insects spring from hot moisture, the fact however being that ants are no exception to the rule of animals arising by development from eggs formed in the pre-existing individuals of the same kind. According to the Tamils, an indication that rain is about to descend is found in swarms of ants carrying their 'eggs' in the mouths and crawling up high places or eminences. Ants on the march follow an order, single file, double file and so on. The Pamburumbu (snake-ant) of Kerala is said to march in twos to summon the cobra when the Vishahari demands the snake's presence to suck out the poison from the corpse-like patient. The instinctive orderliness of ants is of such high order that a Nyayam in ancient Hindu law is called after the ants 'Pipilika Nyayam'. According to ancient Hindu Military Methodology, one of the six methods in which troops may be arrayed is 'Suchi Vyuha', the ant array in extended columns



one row following another like swarms of ants. Ants, whether on their migratory march or on solitary predatory excursions, are believed in South India not to cross white lines. The geometric designs (*Kolams*) drawn on the floor of Hindu households are said to exercise the same ban against their further intrusion into the house. Another belief is that a hunter who, while out, meets ants crossing his path, will miss his quarry. The orderliness and discipline of ants are often upset by the interruption of man and others and if such a confused swarm of bewildered ants is seen while the architect and the owner of a land where he proposes to erect a house are inspecting the 'manai' according to the *Silpa Sastra* or *Manai adi Sastra*, it forebodes misfortune.

The seasonal emergence of winged individuals, known as swarming, is a popular 'Clerk of the Weather,' especially in the case of termites or white ants. It is an indication of approaching rain. If the swarming takes place in the evening, the Tamils say, there will be heavy and continuous rain. But if it is in the morning, the threatening rain will hold off for a short while. Swarming is unlucky, the *Silpa Sastra* says, if it occurs when the owner and the architect have come to survey the plot for a proposed house. In Godavari the appearance of a swarm is believed to foreshadow some benefit.

An ancient belief is that all ants at a certain age acquired wings, the fact however being that the winged ones lose them after their nuptial flight. The texture of the termite wing is of such delicate gauze that the Tamils say "the wings of white ants are the most delicate things ever seen".

The size of ants is well known but the ancient historian Herodotus refers to ants in India larger than a fox and smaller than a dog, which dug up gold and tore to pieces those who came to gather it. These fierce ants were said to keep golden treasure in their holes. Ancient Hindu literature calls gold dust 'Pipilikam' (ant-gold) and the *Mahabharata* mentions the gold-digging ants. Probably Herodotus meant the dogs kept by the miners. Or is it a confusion of ant with the ant-eater, a clawed animal of the size stated?

Among termites the workers not merely surrender their sex to serve their community but make an additional sacrifice of eyesight. Some ants are blind workers or even females in some species. Perhaps it is this fact which made ancient Hindu writers attribute only three senses to ants, viz., touch, taste and smell. The large size of the eye as compared to the body is referred to in a Tamil proverb which says "the eye of the ant is too large for its size while that of the elephant is too small for its size".

Ants use their jaws for biting purposes with good effect when the parts of the body attended to are vulnerable like our seats. The Malayalam

saying is 'to place the Katterumbu (the big black ant) underneath where you sit'. An exception among ants in not being a biter is the small black ant which hence is called in Tamil "Swarniar erumbu" (ascetic ant). The virulence of the bite of some kinds have earned for them the name "Fire ants"; they are popularly believed to be the ghosts of people meeting with untimely deaths.

The food of ants, both true and white, consists of all animal and vegetable matter. Sweet juices are considered a delicacy by the ants. In Trichinopoly, an industrially important place possessing sugarcane-pressing plants, is Thiruverumbiyur 'the city of holy ants'. Tradition says that ants worshipped the Lingam there and poured on it the tiny droplet of sugarcane juice each had brought as the offering. Ghee is another favourite drink and one kind is called 'Neyyurumbu'. The Tamil poet, the author of *Naladyar*, while mentioning the fact that wealthy men even if misers will never be deserted by people, compares it to the habit of ants creeping round and round outside a vessel containing ghee though they could not get into it.

Ants are recognized as destructive creatures as may be seen from the Malayalam saying "The ants which eat away red-hot wood, will they spare a coal-black cinder" but the termites are more so, for they devour all animal and vegetable substances mostly the latter, dead or alive, useless or even worse like the thorny shrub mentioned in the Malayalam proverb "like termites attacking the 'Karakol'".

Anthills, the huge mounds where termites reside, have a religious significance as Shiva is said to have manifested himself in that form. Valmiki, the author of the *Ramayana*, owes his name to the fact of his birth on an anthill (Valmeegam). The Vedans of North Arcot have an alias in 'Valmeegalu' as they 'live on the products of the anthills'. The earth of the termitarium crumbles to dust and that is why the Khond swears with a handful of anthill-earth before him, the inevitable fate of the perjurer being firmly believed to be to 'crumble to dust like a white-ant hill'. Anthills afford comfortable lodgings for snakes and are worshipped as such; the Tamilian says 'the termite is the carpenter of the snake'. *Manu Samhita* warns the Brahman against urinating in certain objectionable places of which anthill is one. Ants, both kinds, rank easily first among the underground residents of the earth, which is therefore figuratively called an anthill. The *Silpa Sastra* says that when experimental pits are dug in a plot of land where a new erection is proposed, the sight of termites forebodes no good to the owner.

Agricultural labourers in many districts consider the winged white ants a delicacy. A favourite dry dish is the bodies of the swarmers fried with rice grains. Among the Tamils of old, *Purananuru* tells us, curries of winged



termites were prepared, with buttermilk and tamarind as the other main ingredients. The bodies of the winged termites, after capture, are sun-dried and stored. The Irulas of Chingleput and the Mutrachas of Nellore and Kurnool are expert termite catchers, the latter being credited with attracting them by the use of a special powder. Mr. Hornell records how Mr. Innes once saw in Madura a low caste man 'engaged in some mysterious work on a white-ant hill with a chank shell in hand. He gave a blast upon the chank at one of the major openings into the hill and crowds of ants sallied forth from other openings and these the man scooped up in handfuls and ate without any preparation.' The queen termite is reckoned a delicacy, fried or raw. In the Tamil districts budding athletes of twelve and above keep themselves in trim by swallowing her raw and then sprinting two and odd miles. Some kinds of true ants are eaten, one being ground into paste and used as a condiment with curry in Canara. Ants are believed to be a tonic diet, as the Tamil proverb says, 'If you eat 1,000 ants you will be endowed with the strength of an elephant'.

The globular nests made of papery material by a species of tree-ants are with their occupants much prized by Vaidas, as the balm (Thailum) extracted is said to be very efficacious in cases of delirium. Termites indirectly yield a medicinal oil. Scorpions are among those whose hearts delight at the emergence of termite swarms; and those who have fed sumptuously on an exclusive diet of winged white ants are valued as yielding an oil considered in Indian pharmacopœia as efficacious for aches in joints.

To destroy ants the best agents are believed to be salt, water and fire. Of course many get trampled to death. This is referred to when the Malayalam proverb says "When elephants fight, it is death to ants." In planting cocoanuts ashes with a handful of salt are used; in sugarcane plantations water in which bundles of Kodikalli and bags of salt are soaked is used as time-honoured preventives. Fire is a good agent to destroy ants; the pitiable shrivelling up is referred to in a Malayalam proverb 'like an ant playing on a red-hot cinder'. Water is also believed to be useful. As the Malayalees say "the drops of water dripping from the eaves long after the rain has stopped" form an ocean for ants. Such an ocean is, according to both Tamils and Malayalees, 'water in a cocoanut hemisphere'.

# MUGHAL LAND REVENUE SYSTEM.

BY L. L. SUNDARA RAM, ESQ., M.A., F.R.E.S.

## CHAPTER I.

### Introduction.

ONE of the most interesting topics that engages the attention of the student of Indian history and economics is the nature of relationship between the sovereign and the actual tiller of the land in mediæval India. Being at once a subject thoroughly historical and antiquarian, a study of Mughal land revenue system entails the necessary culling of statistics and information from State archives and official returns of the Mughal sovereigns of India, a comprehensive mastery over fact and a laborious assimilation of divergent statements and variant readings. Fortunately for us, Abul-Fazl, the famous vizier of Akbar, bequeathed an invaluable legacy to the student of history in his *Ain-i-Akbari*.\* But the task of a careful student of this book is not smooth, since he has often to draw a line between sober fact and courtly adulation, interspersed throughout the text.

Mughal land revenue system, to do full justice to the subject, is the system of land tenure which was in vogue during the period of Indian history ranging between the years 1526 and 1707, roughly two centuries, between beginning with the accession of Zahirud-Din Muhammad, the famous Babar, and seeing its last phase in the death of the Puritan Emperor in 1707. To pay deference to chronological fact, we have to exclude from our survey the period covered by the years 1542 and 1545 when the Sur dynasty reigned at Delhi, and include the century and a half from the death of Aurangzib to that of Bahadur Shah II, the titular emperor of Delhi,—the period when the degenerated replica of the Mughal empire was left to shift destitute on the billows of the protection afforded by short-lived potentates, until the final inundation of British power which culminated in the momentous exile and death of the last descendant of the dynasty of Timur to which the glorious Akbar traced his pedigree. But the reign of Sher Shah should be

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\* The book is mainly concerned with the reign of Akbar. For the later Mughals we have to sound the *Dastur-ul Amal* or the administrative manuals of Aurangzib which were written in 'the exact antithesis of the style of the *Ain*'. But since the translations of them by Prof. Jadunath Sarkar were not available for me, I was obliged to content myself with the material contained in the admirable article by Mr. Moreland in *The Journal of the Royal Asiatic Society* for January 1922. I have freely made use of *Bernier's Travels in the Mughal Empire*, between the years 1656-88, that is, partly in the reign of Shah Jahan and partly in that of Aurangzib. The translation of *Ain* is the one of Francis Gladwin, as that of Blochmann and Jarret is not accessible to me.

reviewed in order fully to understand the revenue system of Akbar whose famous minister Rajah Todar Mal was still a revenue administrator in embryo during his reign and received dexterous training from this emperor himself. The period from the death of Aurangzib may be safely avoided, since during this period the Mughal empire segregated into a congeries of vain dukedoms represented by shallow 'timariots'.

#### Preliminary Remarks.

According to Manu, revenue consists of a share of the Government in the gross output of the different kinds of grain, taxes on commerce, a small impost on petty traders and shopkeepers, and a forced service of a day in each month by the handicraftsmen. But we are concerned here with land revenue and the various processes of its collection which were in vogue in the Mughal empire. In the preface to his famous work, Abul-Fazl says: "The assistants of victory, the collectors of revenues and those who are entrusted with the management of the receipts and the disbursements of Government resemble wind; either a heart-rejoicing breeze or a hot pestilential blast." It is evidently clear that much depends on the machinery employed for the collection of the revenues and the spirit in which it works. Custom and principles of equity enjoin upon the king the paramount necessity of being an "upright intendant of finances" in the first place, the discharge of his duties as protector of the husbandmen from oppression by upstarts, the sole fountain of justice and the consequent mouldering of the destinies of a nation.

Land revenue depends mainly upon the gross output of the various products of a country which vary in different parts of the land, subject to such determining causes as the vicinity or distance of water for irrigation purposes, the nature of the soil itself which tells upon the nature of the crop, and others. Besides the rate of assessment which varies according to circumstances and the level of administrative vision which a government has attained, the revenue depends upon the extent of the land cultivated and the nature of the crops grown.

India is a country mainly agricultural, and Indian finances always depend largely on the land policy of the Government. A policy intended for the amelioration of the conditions of the people means peace and contentment; a bad and inconsiderate policy means disturbance and discontent. It is too familiar for us that at the present day, while the British Government drew freely upon the various resources of India, nearly 40 per cent of the total revenue is derived from the taxes on land. But in the days gone by,

when the taxable resources of the country were found to be few, land revenue came up to 75 per cent or more of the gross receipts of the State.

The annals of the history of the world point out a well-known fact, the perennial struggle between two different schools of thought concerning the attitude of the government towards its subject peasant. The one is to be found in the statement forwarded by Cornwallis in his defence of the permanent revenue settlement: "It is immaterial to Government what individual possesses the land, provided he cultivates it, protects the ryots and pays the public revenue." Here, we should not forget that the "obstinate idealism of Lord Cornwallis", as Dr. Vincent Smith calls it, ignored the fundamental rights of the peasants while turning out to create a system which is all the more worse for them, as expressed in the direct recognition of the Zemindar. The other school of thought is to be found crystallized in the memorable statement of Sir Thomas Munro: "We have only to guard the ryots from oppression and they will create the revenue for us." Hence a study of the land revenue system of a country is a necessity if a clear understanding of the significance of a nation's history is desired. Much more so is the case with regard to the Mughal land revenue policy, since a government though alien to a soil with deep-rooted custom and hoary principles of administration has turned out to evolve a unique type of revenue administration which was borrowed wholesale by the contemporary and later-day Hindu kingdoms in India which were outside the pale of Mughal control, and was groped back to by the early British administrators of India.

#### Nature of Mughal Land Revenue System.

Mughal administrative system was imported ready-made from outside India. As Prof. Sarkar puts it, "it was the Perso-Arabic system in Indian setting". It is but natural that a succession of sovereigns alive to a sort of settled government in their own native land which lay shrouded in abstract Arabic theory, had had the necessity of giving a sort of orderly government to a country newly conquered, while the conception of chalking out a government of a rough and ready kind to govern the heterogeneous mass of the Hindu community of the age with innate disruptive forces is but a dream. Not to prove derogatory to the Mughal sovereigns, we have to recognize this much, that they were, to some extent, sagacious enough in giving their system a local colouring, in striking a compromise between Hindu traditional customs and prevalent notions of Muhammadan administration.

It may be curious for us to note the chronic antagonism between the tax-payer and the tax-gatherer of the day. But such a condition was warranted by the then prevailing circumstances. It is undoubtedly the fact that the Hindu peasant at the time derived no benefit from the State, on

account of the uncertainty of the government, the frequent changes of the dynasties, the unstable nature of the central authority, which were all the more aggravated by internecine warfare and wars of succession. Such a state of things goes to explain the constant struggle between the 'ryot' and the 'sarkar' between the 'never-to-be-extinguished arrears' which the revenue officers were wont to show against the peasant, and the utter disappearance of a *Tabula Rasa* or a clean slate which is to be shown by the peasant.

The prevalence of *Abwabs*, perquisites and presents is another striking note about the Mughal land revenue system. Now, *Abwabs* are illegal cesses current throughout the empire, which will be fully explained elsewhere. The *Ain* mentions that Akbar abolished twenty-nine illegal cesses and vexatious taxes.\* At the death of Shah Jahan there were fifty *Abwabs* flourishing. And it is said that Aurangzib abolished about sixty-eight taxes which were against the principles of the *Quran*. Perquisites etymologically mean allowances granted more than the settled wages. But here they are the exactions demanded by the local authorities for their own benefit, and their prevalence indicates the slackening of imperial control over the subordinate provincial authorities. Presents are warranted by long-standing custom and prevalent notions of etiquette. Besides they are a means of getting any favours which people require for their benefit. And this is but a little episode in the drama of social customs inaugurated by the land revenue system of the Mughal emperors.

The appearance of intermediaries is another feature to be noted. The services of middlemen are, to a great extent, required for the speedy and efficient collection of the revenue by an alien government from a people naturally reluctant to pay their dues, who have not yet come into an harmonious and beneficent relationship with the government. Akbar recognized the necessity of such men and when conditions required gave them a commission to the extent of  $2\frac{1}{2}$  per cent of the State revenues for their labours. This system seemed to be broadly congenial to the government as well as to the people inasmuch as the collection was speedy and effective. But the worst features of the agency of the intermediaries is to be seen when "an occasional Diwan inflated the revenue demand on paper and 'farmed' the revenue to the highest bidder." To this system of farming State revenues by the later Mughals must be ascribed the iniquities of the peasants and the luxurious insolence of the timariots which Bernier lays stress on in his *Travels*.

Another prominent feature to note is the State's sole proprietorship of the lands throughout the empire, a full discussion of which will be presented

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\* *Ain-i-Akbari*, pp. 248-249.

later on. Bernier's cognizance of and gloomy abhorrence at such a state of things is worth reading. But the State's right over property is a fact widely recognized throughout the other kingdoms of India and quite consonant with the then accumulated wisdom of statecraft which eventually made the peasants lose their respect for private property. Besides, there is no hereditary peerage in Islam. The property which was accumulated by the exertions of an ambitious and diligent nobleman reverted to the State at his death. This amounts to the undoing of life's work at death. A simple illustration may be given. The *Mansab*, say of five thousand, which was conferred on a nobleman by the emperor has no implication of its continuance with regard to his son after the noble's death. Everything is a matter of distinction and imperial favour, while the son of a nobleman may enjoy a greater *Mansab* or none at all. Everything is ephemeral in such a society:

Under the Mughals, the *Sarkar* is the territorial unit while the *Mahal* is a revenue division; or, to put it in another way, the *Mahal* is the fiscal unit while the *Parganah* is a fixed historical division. All the revenue documents of the Mughal times have, as their avowed objects, the extension of cultivation on the one hand, and the improving of the crops on the other; but both are so designed as to accelerate the increase of the revenue of the State. Above all, it should be noted that the revenue system need not necessarily be uniform throughout a *Subah* or a province, but was subject to the determining elements of local conditions, and the *Ain* states that "the revenue of a *Bigah* differs in every village".\*

#### Technique to be met with in the Nomenclature of the System.

Having seen the nature of the Mughal land revenue system, let us now turn to the technique which it has evolved during the period of its vogue. An exhaustive study of the said system reveals a host of unintelligible words which crept into the early British revenue system and which can be seen to some extent even at the present day.

**Abwabs:**—Illegal cesses and vexatious taxes which were imposed by rapacious and greedy revenue underlings.

**Amilguzar:**—An officer who shared with the *Fouzdar* the entire administration of a district. His task is in the main the assessment and the collection of revenue. The *Ain* describes him† as a "person who must consider himself as the immediate friend of the husbandman, be diligent in business, a strict observer of truth, being the representative of the magistrate. .... He must assist the needy husbandmen with loans of money, and receive payment at distant and convenient periods."

\* *Ain-i Akbari*, p. 188.

† *Ibid.*, p. 261.

*Amil* :—A term indifferently used by the *Ain* with the term *Amilguzar*. This much is certain that it is the designation of an executive official under the immediate supervision of the *Subahdar*.

*Amin* :—"Literally means an umpire, an arbitrator, a trustee for others."\* The function of his office is to strike a compromise between the demands of the State and the payments of the individuals. He is under the direct control of the *Amil*.

*Balaghat* or Highlands, is one of the two administrative divisions effected by Aurangzib in the Deccan. A *Diwan* was placed in its charge with certain executive powers. The illustrious Murshid Kuli Khan worked out a revolution for the better in the existing system of revenue administration there.

*Bandobast* is a Persian word, the exact translation of which in modern phraseology is the word 'settlement'. "The comprehensive term *Bandobast* or 'settlement' covered all the operations incidental to the assessment of land revenue or government share of the produce."†

*Biga* or *Jarib* are names synonymously used for measurement as well as a fixed quantity of land. "It consists of three thousand six hundred square Guz."‡ But the *Ilahi Guz* of Akbar being equivalent to a unit of measurement ranging from 29 to 34 modern inches, the *Biga* may be stated to be the equivalent to a modern half-an-acre and something more.

*Bunjer* :—It is a kind of land that has been left fallow for five years and upwards.

*Butticy* or *Bhaweley* (*Batai*) are systems of realization of revenue in which the State and the peasant divide the grain collected in barns after the harvest according to the stipulated terms of an agreement.§

*Chaudhri* :—One of the so-called local authorities—the headman of the *Pargana*. He corresponds in a greater degree to the headman of the village.

*Checher* :—A kind of land left fallow for three or four years consecutively and then resumed under cultivation.

*Dahsala* :—The cash rates which are cognizable under the later Mughals acquired the name of *Dahsala* for the reason that they were mainly based upon the actual figures for ten years.

*Basturs* :—*Pargana*s which followed the same code of revenue administration which are in themselves rare, as the *Ain* points out,|| were grouped together for the convenience of administration and a *Dastur-ul Amal* or "customary practice" was given for each group to facilitate smooth government.

\* Sarkar : *Mughal Administration*.

† Smith : *Oxford History of India*.

‡ *Ain-i-Akhari*, p. 243.

§ *Ain-i-Akhari*, p. 262.

|| *Ibid.*, p. 188.



**Diwan** :—Originally the designation of a minister at court, the term was extended to cover the duties of an immediate subordinate of a governor of the province. His office is chiefly one of a fiscal character. Under Akbar, the fiscal and the military powers of provincial authorities were vested in the *Sipahsalar*. But under the later Mughals segregation was made between the functions of the *Subahdar*, purely military, and those of the *Diwan*, purely financial.

**Faujdar** :—A divisional officer who was appointed to the charge of several *parganahs*.\* In conjunction with the *Amilguzar*, he manages the affairs of the district, and answers in a smaller degree to the *Subahdar* of the later times. Besides keeping order, his function is one of facilitating the speedy and the unruffled collection of revenue by the *Amilguzar*.

**Challabakhsh** :—It is a form of revenue collection, the modern equivalent of which is metayearship. It is the original Indian system where recourse was taken to the actual division of crops.

**Ilahi Guz** :—It is a unit of measurement which consisted, according to the standardization of Akbar, of forty-one fingers;† its corresponding equivalent in modern measurement varies from twenty-nine to thirty-four inches. The *Ain* traces the *Guz* to Sultan Sikandar Lodi and shows that Sher Shah used a *Guz* of thirty-two fingers for purposes of measurement.

**Jagir** :—Represents the assignment of lands by the sovereign to persons of distinctive merit and courtly subordinates. The system of granting *Jagirs* has difficulties of its own, but it was prevalent throughout mediæval India.

Alla-ud-din disapproved of the system of payment by *Jagirs*, while under Firuz Shah the grant of such was the rule. Akbar suppressed such grants except rarely for purposes of *Seyurghal*. Later on they were revived. The grant of a *Mansab* had the necessary accompaniment of a *Jagir*.

**Kunkut** :—The word is derived from *Kun* which signifies grain and *Kut* to conjecture. In other words, it means estimation of grain by conjecture. "Land is measured with the crops standing" and estimates are made by personal inspection. Revenue experts daily conversant with such a system can calculate with admirable exactitude. In case of doubt, the weighing of the grain derived from a certain plot of land containing good, middling and bad tracts in equal proportions was adopted in order to attain a comparative estimate.‡

**Karori** is the designation given to the actual collector of revenue. The name was originally given to the collector of a stipulated division of land which was estimated to yield a crore of *Dam* (40 *Dam*=Re. 1) or two and a half rupees. But the term survived in later times irrespective of the amount of revenue collected.

\* *Ain-i-Akbari*, p. 257. (Tarrat, II, 40). † *Ain-i-Akbari*, p. 243. ‡ *Ibid.*, p. 252.



*Rheyt Buttley* :—A system of revenue collection in which the State and the peasant divided the field as soon as it was sown.

*Lang Buttley* :—Another system of land tenure where the heaped-up grain was divided according to agreement.

*Mahal* is the fiscal unit into which the whole land was divided by Akbar. According to my computations, the fifteen *Subahs* were divided into 3,367 *Mahals*. It is merely a formal revenue unit, where the revenue was calculated as so much per *bigah*.

*Mahsul* is the average of produce calculated from equal units of good, middling and bad lands. One-third of the *Mahsul* went as the State revenue under Akbar.

*Mugaddam* or *Kalantar* are the names given to the local headmen of the villages. Special stress is laid upon them on account of their usefulness to the State in the collection of revenue.

*Naqdi* :—Presumably a system of revenue collection under which the revenue was paid through the zemindars.

*Nasq* :—A system of land tenures quite familiar to the writer of the *Ain*, the general nature of which is one of contract rather than of a due estimate based on calculations. It was rather an agreement with the zemindars who collected the revenue for the State than a ryotwari system.

*Paimaish* :—*Paimaish* and *Zarib* may be taken as synonyms, and they mean the actual measurement of land for ascertaining the extent of cultivation. *Nasq* means the setting aside of *Paimaish* which is the necessary antecedent of the ideal *Zabti* system.

*Painghat* :—Like *Balaghat*, noticed above, it is the second division of the Deccan which Aurangzib effected for purposes of administration. It is otherwise known as the Lowlands comprising of Khandesh and a half of Berar.

*Perowty* :—A kind of land which is left out of cultivation for some time so that it might recuperate its deficient mineral constituents by the operation of natural forces upon it, and then resumed under cultivation.

*Polej* is the ideal sort of land with a rich measure of phosphates and nitrates very much congenial to a good crop and it is never allowed to lie fallow.

*Pukhta* :—Appointing officers; *Pukhta* means the farming of revenues to certain individuals, naturally to the highest bidders during the process of *Izara* or leasing.

*Putteedaree* :—"The characteristic of the *putteedaree* tenure is the partition, or apportionment of land in severalty, with joint responsibility. Each owner or shareholder undertakes the management of his separate portion, paying through the headman that proportion of the whole assessment

on the estate which, by previous agreement, has been fixed upon this portion of the land.”\*

*Patwari* :—“The *Patwari* is employed on the part of the husbandman to keep an account of his receipts and disbursements, and no village is without one of these.” He is the accountant-registrar of the village.†

*Qanungo* literally means the ‘expounder of the law’, or ‘customary rules’. As Prof. Sarkar puts it pictorially :‡ “ He is a walking dictionary of prevailing rules and practices and a storehouse of information as to the procedure, land history of the past, etc.” Being in possession of ancient documents, some of the *Qanungo* families are veritable mines of trustworthy information. Hence, his designation by the *Ain* as ‘ the protector of the husbandmen ’ and there is “one in every *parganah*”.§

*Raqmi* :—Mr. Moreland describes it as a system under which “ officers wrote down anything they chose, and the record was manipulated in connection with the remuneration of the high officers of the empire ”.||

*Ryotwari* :—Unlike *Putteedaree* it is a system of land tenure divested of joint responsibility. The individual cultivator was made directly responsible for the payment of the fixed assessment, and it is the most popular and extensive single system of land tenure in British India.

*Sarkar* is a territorial unit being sub-divided once again into *Mahals*. Several *Sarkars* go to make a *Subah*.

*Seyurghal* comprises of favours in the form of land which the emperor conferred upon the learned scholars, “ the persons who have bid adieu to the world”, the needy crippled, and the proud but degenerated noble families who cannot take to any profession on account of their presumed dignity,¶ and such other manifestations of religious and large-hearted acts.

*Sipah-Salar* :—He is the governor of a province or *Subah* under Akbar with combined powers of the military commander as well as the trustee of the public fisc. Later the functions of the *Sipah-Salar* were segregated, and by the time of Aurangzib, we find the *Subahdar* and the *Diwan* dividing his powers among themselves. He must be vigilant in his business, and cautious in action since he is the guardian of the people and should “ keep in view the happiness of the people.”§

*Subah* is an administrative division effected by Akbar for purposes of revenue collection, and it roughly answers to the Presidency of the present day. Originally, there were fifteen such in the time of Akbar but they rose to twenty-one under Aurangzib.

\* Robinson quoted by Cowell. Elphinstone : *History*.

† *Ain-i-Akhari*, p. 249.

‡ *Mughal Administration*.

§ *Ain-i-Akhari*, p. 247.

|| *Journal of the Royal Asiatic Society*, Jan. 1918, p. 17.

¶ *Ain-i-Akhari*, p. 186.

§ *Ibid.*, p. 253.

*Subahdar* is the officer in charge of the *Subah*. He is the supreme military and police authority in the *Subah*, the control of finance being relegated to the *Diwan*.

*Taluqdaree* is the system of land tenure which was super-imposed over other forms by Muhammadan rulers who had recourse to farming revenues to big officers and powerful chiefs in the State, later developing into hereditary possessions (Yule & Burnell). Cf. the famous Talukdars of Oudh.

*Taqavi* :—Loans which were granted from the treasury to the poor peasants for the purpose of helping them in the purchase of the plant necessary for agriculture, and realized by instalments at the times of harvest were known as *Taqavi* loans.

*Tenab* :—A chain of sixty *Guz* in length "composed of bamboos joined together by iron rings" which was standardized by Akbar for purposes of measurement.

*Tepukchy* :—An industrious and skilful accountant on whom the *Amil* chiefly depends for trustworthy information.†

*Zabti* is the ideal form of land tenure which was ryotwar where, after a careful *Zabt* or measurement and consultation with previous accounts, the officers fix the amount due to the State.

*Zarib* :—As indicated above, *Zarib* and *Paimaish* are synonymous. *Zarib*, though the necessary antecedent of the ideal *Zabti* system of land tenure, later on turned out to facilitate extortion.

*Zemindar* is an intermediary who collected the revenue from the cultivator and had a percentage of the collected dues due to the State as his remuneration.

*Zemindaree* :—"The distinguishing feature of the *Zemindaree* tenure is that when an estate belongs to several proprietors, it is managed in joint stock with no separate possession of portions of land by the sharers."‡

## CHAPTER II.

### Akbar's Land Revenue System.

#### LAND REVENUE SYSTEM BEFORE AKBAR.

There is nothing of Mughal land revenue system before Akbar. The ideal form of the original Hindu system of land tenure with a few foreign elements survived till his time. All that was done was that a few greedy sovereigns distorted the original ideal system by engrafting certain undesirable elements upon it. But the basic principles of Manu's Code were never totally lost sight of, nor were they not in any faint degree even recognized.

\* *Ain-i-Akhari*, p. 243.

‡ Robinson, quoted by Cowell. Elphinstone : *History*.

† *Ibid.*, p. 266.

Under the Sultanate of Delhi true it is that several changes were effected in the system of administration along with the parcelling of the empire under new denominations and consequently the revenue system too underwent a change. Even though the Government's share of produce increased and new taxes were imposed upon the people, their lot was not so appalling like the conditions that prevailed at the break-up of the Mughal empire. Undoubtedly the changes for the worse innovated by Sultans like Firuz Shah Tughlak entailed several hardships upon the people. But instances like this are few. Even a highly centralized autocracy conferred benefits, as the institution of such a system of government meant the removing of the precariousness of security and peace during the mediæval ages notorious for the scrambling for empires, and the people were content. The testimonies of the historian Phiruz Shah (A.D. 1352—1394) and of Nicolo de Conti corroborate the statement. Firuz Shah expatiates upon the happy state of the ryots with a certain degree of prosperity as can be seen in the general use of gold and silver for purposes of ornaments, and from the general goodness of the houses and furniture. Even though he is a panegyrical writer, he does not fail to mention "that every ryot had a good bedstead and a neat garden" which is itself ample testimony to the general comforts of the people. Nicolo de Conti, travelling about the year A.D. 1420 attests to the fact that the state of India was flourishing with beautiful gardens and opulent cities. Ibn Batuta's impressions about the reign of such a cruel and scheming autocrat are nothing but generous, and it is a tribute paid to the satisfactory state of things then prevailing.\*

Babar and Humayun did not introduce any changes into the existing nature of things. They were the first conquerors in their dynasty and were mainly occupied with subduing the land and maintaining peace and order. Their time was pre-occupied with suppressing internecine quarrels and open rebellions, and consolidating the empire. So, when we come to the end of the reign of Humayun, we find relief in the benevolent reign of Sher Shah.

Sher Shah is the real inaugurator of Mughal land revenue policy, even though the statement looks technically inaccurate. Sher Khan belonged to the Sur family and rose from the Governorship of Bengal to the Imperial throne of Delhi consequent on the victory gained by him over Humayun in 1542, and for nearly a decade and a half he ruled over the Indian empire from Delhi, when in 1555 Humayun once again regained his lost throne. Even though Sher Shah proved to be the best administrator of the Mughal empire before Akbar, he owed much to his predecessors. Alla-ud-Din was his model, and his successes as an administrator of importance are attributable to the latter.

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\* See Elphinstone : *History*, pp. 477—478.

It is no exaggeration when Elphinstone asserts\* that Sher Shah undertook measures "as benevolent in their intention, as wise in their conduct". The short period of his reign is replete with the many improvements wrought by him in the administration of the country. His critical judgment was directed mainly at the ascertaining of the exact nature of affairs in the State and the adopting of remedial measures to rectify abuses. He found the coinage had degenerated and reformed it by the issue of an abundance of silver money, excellent both in design and purity. Money is the medium of exchange among the people as well as the means for the realization of State revenue. Bad coinage means the extortion of much money from the peasants when they come up to remit their dues to the State, by the then prevalent process of taking additional bullion to make up the deficiency in weight of the degenerated coins, as we shall see later on. Gresham's Law is sure to operate here and the opulent few will benefit themselves at the expense of the poor and the helpless peasant by the suppressing of the good coinage from circulation and hoarding them up which they alone are capable of. Hence the reform of the coinage is a boon conferred by Sher Shah upon the people of mediæval India, especially in their relationship with the State as regards the payment of their dues where alone they felt the pressure of the drain of their wealth from payment through bad coinage.

Sher Shah did many other things for the benefit of the people. The *Ain* states :† " Sher Khan or Selim Khan, who abolished the custom of dividing the crops, used this *Guz* for that purpose." The *Guz* referred to was one of thirty-one fingers in length which consequently falls short of the *Ilahi Guz* of Akbar. From the passage quoted above, it is evidently clear that Sher Shah anticipated Akbar in ways more than one. He made use of a definite unit of measurement ; he abolished crop division and adopted a fixed rate of assessment which is beneficial to the ryot inasmuch as he is in a position to know definitely about his dues to the State ; and made a survey or measurement of all cultivated land. Further, the Rupee of Akbar is traced to him.‡ Abul Fazl though at times critical in his estimate of Sher Shah's policy does not fail to acknowledge that he was the original of his illustrious master. Had Sher Shah been spared for a longer period, he would have rivalled his successor in fame, and the star of Akbar would have faded before the serene sheen of his halo. But his ill-fated dynasty was given a rude shock by the reconquest of the empire by Humayun in 1555. Whatever the fortunes of the Sur dynasty, it will never fail to be remembered by posterity for having produced Sher Shah.

(To be continued.)

\* *History*, p. 447.

† *Ain-i-Akbari*, p. 243.

‡ *Ain-i-Akbari*, p. 23.

## RAJADHIRAJA II.

By SOMASUNDARA DESIKAR, Esq.

IN the Annual Report on *South Indian Epigraphy* for the year ending 31-3-24, the Government Epigraphist at Madras writes that "From a record of Rajadhiraja II (No. 433 of 24) we understand that the daughter of Vaippūr Udayān was the mother of Rajaraja II and that a sister of Rajaraja II was given in marriage to Viḷiyūr Udayān." The identity of this grandfather and the brother-in-law of Rajaraja II is not at present known. The above inscription which has been secured from Pallavarāyam-pēttai is the most important record in this year's collection, since it gives in detail the circumstances under which Rajadhiraja came to the throne. Hitherto the position of Rajadhiraja II in the genealogy of the later Cholas was based on surmises but the present record disposes of the theory that Rajadhiraja II was the son of Rajaraja II. The inscription begins with the introduction கடல்குழந்தை, etc. and it is dated in the eighth year of Rajakesari Varman alias Tirubhuvana Chakravartikal Rajadhiraja II (para. 19, p. 103).

For the better understanding of the historical situation I give below the inscription in full as read by me :

1. ஸ்வஸ்தி ஸ்ரீ கடல் குழந்தை பார்மாதரும் பூமாதரும் கலைமாதரு  
மடல் குழந்தை போர்மாதருஞ் சீர்மாதரு மமர்ந்துவாழ
2. நாற்கடல்குழ புலியேழும் பாற்கடல்போல் புகழ் பரப்பி ஆதியுகம் வந்ததென்னச்  
சோதிமுடி புனைந்தருளி
3. அது சமையமும் ஐம் கழும்<sup>1</sup> நெறி (யில்) நின்றபசரிப்பத் தெக்கவருஞ்<sup>2</sup>  
சோலருஞ் சிங்களரும் பல்லவர்கள் முதலாய மன்னவர்கள் திறைசுமந்து வந்திறைஞ்சிக்  
குடைகவிப்ப ஊழிசெங்கோல் எழுவருயினி தளிப்பச் செம்பொன் வீ
4. ரவிரஹாஸநத்து உலகுடை முக்கோக்ஷிழானடிகனோடும் வீற்றிருத்தருளிய  
கோவிராஜகேசரி பன்மருனதஜுவநதுக் கவர்ந்திகள் ஸ்ரீ ராஜாயிராஜ தேவர்க்கு யாந்நடி  
எட்டாவது :||=
5. ஜயக்கொண்ட சோழமண்டலத்து ஆழர்க்கோட்டத்துச் சிறுஞன்ற காட்டுக்  
காரிகைக் குளத்தூர்க்<sup>3</sup> குளத்தூர்க்கிழான் திருச்சிற்றம்பல முடையான் பெருமானம்பியா  
ரான பல்லவ

<sup>1</sup> இவ் இருதல வளவுக்குட்பட்ட எண்கள் கல்வெட்டு வரிகளை துறிப்பன.

<sup>2</sup> பி-ம், கிம்புதமும்.

<sup>3</sup> தென்னவரும்.

<sup>4</sup> இது காரிகை பாடிய.

6. ராயர் பெரியதேவர் ராஜராஜதேவர் பெருந்து கோயிற் கெடந்தும்,<sup>1</sup> அவர்க்குத்<sup>2</sup> திறை ஆகும்படி நியாயம் உள்ளிட்ட துறைகளுக்கும் முதலிகளுமாய் முதலிகளோபாதி காரியத்

7. துக்குங் கடவருமாய் எல்லாவரிசைகளும் முன் ஏவல் உள்ளிட்டு முதலிகள் பெறக்கடவ ஏற்றங்களும் பெற்று நின்று பெரியதேவர் துஞ்சியருளிப்<sup>3</sup> பிள்ளைகளுக்கு ஒன்றும் இரண்டும் திருநகூத்திரமா

8. கையால் ஆயிரத்தளிப்படை வீடும் விட்டுப் போதவேண்டிப் போதுகிற இடத்துத் திருவந்த [ப்]<sup>4</sup> புரமும் ப[ண்]டாரங்களும் உள்ளிட்டன எல்லாம் பரிகரித்துக் கொடு போந்துராஜ.

9. <sup>5</sup>[ராஜபுரத்].....திலே இருந்த இடத்துக்குச் சூழ்த்தாயிடம்.....யரு[மி] குறிப்.....த்து உடன் கூட்டத்த[ர்].....ராலும், எல்லா.....சோழ ராஜ்யத்துக்குள்ளேயே இருப்பராகணைவரும்

10. வேண்டிப் புரத்து எல்லா அடைவுசேகெளம் வராத இடத்தி இந்.....னும் பரிகரித்து இவ்[வாறு] பெரியதேவர் எழுந்தருளின நாளிலே திரு அபிஷேகத்துக்கு உரிய பிள்ளைகள் இன்றியெ[ரிந்ததால்] முந்தி தி<sup>7</sup>

11. ருவடியைப்பார்த்து முன்னாளிலே காரியம் இருந்தபடி வி[சாரணை]செய்து கங்கைகொண்ட சோழபுரத்திலே எழுந்] தருளி இருக்கிற பிள்ளைகளை.....யாணம் பண்ணாது உடையார் விக்கிரம் சோழதேவர் போனார்<sup>8</sup>

12. கெறி உடைப்பெருமான் திருமகனார் எதிரிலிப்பெருமான் எதிரில்பேச..... ப்பரிசு<sup>9</sup> அருளின நாளிலே மண்டை கவிப்பித்து.....தாரானவாறே இவரைத் திரு அபிஷேகம் பண்ணு] விக்கக் கடவராக எடுத்து நாலாந் திருநகூத்திரத்திலே ராஜாயிராஜ தேவர் எ

13. ன்று திரு அபிஷேகம் பண்ணுவித்து உடன்கூட்டமும் நாடும் மொன்றுபட்டுச் சொல்லும்படி பண்ணி[வித்தருளிய] னுமிகை செய்யாதபடியும் பரிகரித்து, இவர்கள் னல்.....ல் சேரப்பிடித்துப் பணிஅழகிதா

14. கச்செய்வதொரு படியும் பண்ணி [;] ஈழத்தரயன் பாண்டி நாட்டிலே படை களுங் காரணவராளுரையு மிகுறிப்படுத்தி].....தெருத்திவிட்டு இன்னாடு கைக் கொற்றக் கடவநாகப்பண்ணின இவரே பாண்டியனார் குலசேகர தேவர்

1 'பொத்து கோயிற்கொத்தும்' என்று கல்வெட்டு துறையார். வாசிப்பதாகக் காண்கிறது. பொத்து என்பது பொதுத்து என்றும் கொத்து என்பது வேறொரு சொல்லிருந்ததையழித்து கெடந்தும் என்று வெட்டப்பட்டிருக்கிறது.

<sup>2</sup> ஆவார்கடு என்றிருக்கிறது.

<sup>3</sup> தஞ்சியருள.

<sup>4</sup> இது வீரசோழிய வுரையில் குறிப்பிடப் பட்டுள்ளது.

<sup>5</sup> திருதலுப்பகரத்துக்குட்பட்டவை ஊகித்துப்போடப்பட்டவை.

<sup>6</sup> இந்த வரிதான் முக்கியமாயிருந்தும் இது உதிர்ந்தும் உடைக்கப்பட்டும் லீட்டது.

<sup>7</sup> முந்தி திரு என்பது உற்றுநோக்கத்தெரிசிறது.

<sup>8</sup> The Epigraphist reads as பேரனார் (Grandson). But Edirili Perumal seems to be a General. Vide Arappakkam Inscription and Ep. Annual Report for 1898-99.

<sup>9</sup> இவ்விடம் கல்வெட்டுத்துறையார் நன்குபார்க்கவேண்டும்.



15. தம்முடைய ராஜ்யம் விட்டுச் சோழராஜ்யத்திலே புகுந்து என்னுடைய ராஜ்யம் நான் பெறும்படியிப் பண்ணவேண்டுமென்று சொல்ல இவர் உடையார்.....வரம் பெறும் படி பண்ணக்கடவராகவும். இந்த ராஜ்யத்திலே புகுந்து கைக்கொண்ட இலங்காபுரி தண்டநாயகன் உள்ளிட்டகரைக் கொண்டு பாண்டியர்கள் இருப்பான மதுரை வாசலிலே இவர்கள் தலை தைப்பிக்கக்கடவராகவுஞ் சொல்லி இப்படி எல்லாம் விண்ணப்பஞ்செய்து திருவுன்னமானபடியே பாண்டியனார் குலசேகர தேவர் சோழராஜ்யத்தில் இருந்தநாளில் இவர்க்கு வே

18. ண்டுவன வெல்லாங் குறைவறச் செய்து பரிகரித்து பலத்தாலும் பாண்டிநாடு கைக்கொண்டு தாஞ்சொன்னபடியே இலங்காபுரி தண்டநாயகன் உள்ளிட்டகரைக்கொண்டு இவர்கள் தலை

19. மதுரை வாசலிலே தைப்பித்து பாண்டியனார் குலசேகரதேவர் மதுரைநிலே<sup>1</sup> புகுகைக்கு வேண்டுவளவும் பாண்டியராஜ்யத்துச் செய்வித்து இவரை மதுரைநிலே<sup>1</sup> புகவிட்டுப் பாண்டிநாடு இழநாடாகாது

20. பரிகரித்துச் சோழசைநயம்<sup>2</sup> சென்று பிடித்து நழுத்து தொண்டை நாமம் சேனை எழும்படியும் பண்ணி ராஜ்ய<sup>3</sup> காரியம் கொண்டு நிர்வகிக்கக் கடவாம் ; இப்படிச் சட்டனை யிட்டுத்தான் காரியங்கொண்டு ஒருத்தின்படியே தமக்குப்

21. பின்பும் இக்கட்டினையிலே காரியஞ் செல்வதொருபடி காரியங்கொண்டு செல்வ தாகிற்க; இவர் வியாதிப்பட்டு இன்றியே ஒழிந்தமையில் இவர் விருந்தங்களுக்கும் மக்களுக்கும் இவர்கள் விருந்தங்களுக்கும் மக்களுக்கும் பெண்மக்களுக்கும் தாயார்க்கும் உட

22. ன் பிறந்தானுக்கும் இவன் மக்களுக்கும் இவர்கள் வர்க்கத்தார்க்கும் விருத ராஜ பயங்கர வளநாட்டுக் கொறுக்கை நாட்டு இவர்காணியான சோளேந்திர சிங்ககல்லூரில் பழம் பெயர் தவிர்ந்து யாண்டு எட்டாவது முதல் அந்தராயம் பரட்டமுட்பட இ

23. றைவிலியாய் வேறு பிரிந்த ராஜராஜன் குளத்தார்<sup>4</sup> நிலம் நாற்பதிற்து வேலி[;] இந்நிலம் அனுபவிக்கும்படிக்கு ஜயங்கொண்ட சோழமண்டலத்து மேன்மலைப்பழையனார்ப் பழையனாருடையான் வேதவனமுடையான் அம்மையப்பரான பல்லவராயன் சிச்சயித்த படியாய் அனுபவிக்கும் விருந்தங்களில் சிற்றலத்தாருடையான் மகளுக்கு நிலம் மூவேலியும் இவர்மக்கள் வாட்கைப்பட்ட பெண்கள் மூவார்க்கு

25. பேரால் நிலம் இருவேலியாக அறுவேலியும், நெற்குன்றங்கிழான் களப்பரான ராயர் மகளுக்கு நிலம் மூவேலியும் பெண்மக்களுக்கும் பெயரால் நிலம் இருவேலியாக நிலம் அறுவேலி

26. யும் அம்பர் அருவத்தை காலிங்கராயர் மகளுக்கு நிலம். மூவேலியும், மக்களில் சேந்தன் திருகட்டமாய் வீரதேவங்குடையான் மகளுக்கும் இவன் மகளுக்கும் இவன் மக ளுக்கும் நிலம் இருவேலியும், ராஜாதிராஜதேவர் விருந்தங்களுக்கும் மக்களுக்கும் மக்களுக் கும் நிலம் எண்வேலியும், தாயார் வைப்பூரு

<sup>1</sup> மதுரையிலே என்று வாசிக்க.

<sup>2</sup> சைந<sup>3</sup> (1) ஒன்று சிரந்தத்திலிருக்கிறது.

<sup>3</sup> ராஜ<sup>4</sup> (1) என்று இருக்கிறது.

<sup>4</sup> இது மாயூரம் தாலுக்காவில் கொறுக்கைக்கு ஒரு மைலுக்குள் இருக்கிறது.



27. டையார் மகளார்க்கு நிலம் [எழு] வேலியும் உடன் பிறந்த பெண்களில் வழியுருடையானுக்கு புக்க பெண்ணுக்கும் இவன் மகளுக்கும் நிலம் இருவேலியும் ஆக நிலம் காற்பதிற்று வேலியும் அந்தராயம் பாட்டமுட்பட இறை இலி

28. இட்டமைக்கு |||= உன்வரிக்கு எழுத்திட்டார் கந்தியராயர் ||- அமரகோனார் ||- கண்கராயர் ||- மூவேந்தராயர் ||- ஜினத்தராயர்<sup>1</sup> விசையராயர் ||- புரவுவரி ஸ்ரீ கரணநாயகம் சிறுகுடையான் |||= குன்றங்கிழான் ||- காணூர்சிழுவன் ||- நரியனாருடையான் ||-

29. புரவுவரி ஸ்ரீகரணத்து முகவெட்டி. சங்கை உடையான் ||- ஆளுருடையான் ||- தத்தை நல்லூருடையான் ||- சிறு நல்லூருடையான் ||- இப்படிக்குப் பிரஸாதஞ் செய் தருளின ஸ்ரீமுகத்துக்கு எழுத்திட்டார் சேதிராசர் ||- வாணாதி ராஜர்.....ராசர் ||-

30. ராசராச விழுப்பராயர் ||- சிங்கன ராபர் ||- நீலசங்க ராயர் ||- சீயத்தராயர் ||- எழுதி னுன் திருமந்திர ஒலை மீனவன் மூவேந்தவேளான் |||=

Commenting on this paragraph, the Epigraphist writes in para. 20 of the same report as follows:—Kulottūrān Tiruchiṭṭāmbala mudayān Perumān Nambiyār *alias* Pallavarāyar referred to in the above paragraph (para. 15 of the report) appears as the chief officer (mudali) of the king Rajaraja II. The Koil kothu (the palace staff) was in his charge and he received all honours (varicāḷkelum) and preferments (yēṭṭrangalum) that a man in his position could expect from the king. He thus seems to have enjoyed the full confidence of the king (Rajaraja II). When this minister was at the height of his power, Periya Devar (Rajaraja II) passed away leaving behind him two children aged one and two years respectively. Since the times were troublous ones, the minister was obliged to leave the fort (Āyirattali padai) and to guard from danger the harem (Tiru antappuram) and the children whom he lodged in a place free from all danger. Seeing that there was no grown-up heir to the crown the minister raised to the throne Ediriliperumal, the son of Neriyudai-perumal and the grandson of Udayar Vikrama Chola Deva. This Ediriliperumal was crowned under the royal name Rajadhiraja in his fourth year (nālām tirunakshatram) with the unanimous consent of the Chief's party (udan kūṭṭam) and of the whole nādu. There seems to have been great opposition, both open and secret, to the coronation from many quarters, against which the minister carefully guarded the person and firmly established him on the throne after imprisoning all the suspected enemies. Unfortunately the inscription is much damaged in certain important portions and leaves much for surmise. The minister had evidently to place a member of a different family on the throne, because the children of Rajaraja II were infants. This is perhaps the reason why Kulottunga III, the son of Rajaraja II, did not succeed his father immediately. At the time of Rajaraja's death (A.D. 1162) Kulottunga III was one or two years old, and when he actually came to the throne in 1178 A.D., he was 16 or 17

<sup>1</sup> சினத்தராயர்.

years old when he could assume the reins of government. *Whether Rajaraja II was ruling during the minority of Kulottunga III as a regent only or the crown passed on to Kulottunga III on Rajaraja's death, as a matter of course, are points that have to be settled by future researches.* In any case, the statements made in p. 48 of the annual report of 1909 that Rajadhiraja II was the son of Rajaraja II and the surmises made by Mr. L. D. Swamikkannu Pillay in his *Ephemeris*, Vol. I, Part II, page 70, that 'records began to run in the name of Rajadhiraja II even during the lifetime of his predecessor have now to be revised in the light of the present record.' (The italics are mine throughout.)

These lengthy statements are reproduced for a clear understanding of the situation. From the extracts quoted above, it will be seen that the Government Epigraphist is of opinion that—

1. Kulottunga III is the son of Rajaraja II and he was a minor of one or two years when his father died ;

2. It is not clear whether Rajadhiraja II was during the minority of Kulottunga III, really ruling as king or only as his regent ; and

3. There seems to have been great opposition, both open and secret, to the coronation of Rajadhiraja II from many quarters.

Before considering the points raised above, let us first of all see what the inscription has to say for itself. It runs thus: 'In the 8th year of Rajadhiraja (line 4), when his late majesty Rajaraja Devar (II) was lying ill in the palace and in order that the revenue due to the State may be collected and that justice may be continued, the chief lords (mudali) are requested to do the following, including the duties already entrusted to them (l. 6): they are to receive all the preferments (varicai) and honours (yēṭṭrangal); when his majesty breathed his last (his) children were one and two years old (l. 7), they are to leave the fort of Āyirattali and to go to a certain place with the royal family including the servants for safety (ll. 8 & 9). As there was no son fit for coronation when His Majesty paid his debt of nature (பெரியதேவர் எழுந்தருளின காளிலே திருஅபிஷேகத்துக்கு உரியின்றைகளின்றி எரிந்ததால்) (l. 10), enquiries may be made about the correct lineage according to tradition (முந்தித் திருவடிமைப் பார்த்து முன்னுளிலே காரியம் இருந்தபடி விசாரணை செய்து) without considering that line which is living at Gangaikondacholapuram (கங்கைகொண்ட சோழபுரத்திலே எழுந்தருளி யிருக்கிற பிள்ளைகளை.....யாணம் மண்ணுது) (l. 11), king Vikrama Chola died and as was spoken to in the presence of Ediriliperumal, son of Neri-yudai-perumal (l. 11), let the chosen person be coronated on the day already agreed to (l. 12) and let him be named Rajadhiraja after his coronation on the fourth year (after the demise of the late Majesty) (l. 13). You are

requested to see that the country follows the king and there is no revolution or rebellion (ll. 13 and 14); as the Ceylonese have entered Pandinad to assist the rebel against the legal king and have driven Kulasekara Deva (l. 14), and as he came and requested us (Rajaraja II) to assist him in regaining his kingdom (l. 15), let all assistance be given and Lankapuri Dandanayaka be impaled at the gates of Madura with all his associates (l. 17). So ordered the king (Rajaraja II) (l. 17) and Lankapuri Dandanayaka was captured and impaled at the gates of Madura; Kulasekara Deva was reinstated in the Pandiya kingdom (ll. 18—21); as he (Rajaraja II) died through continued illness, the village of Kulattur in Korukkai nādu, a sub-division of Vritharaya Bayankara valanādu, containing forty velis, is divided among the relations of his as distributed by Ammayappa Pallavarayan *alias* Vedavanamudayan Paḷayanūrudayan of Mēmmalai Palayanur situate in Jayankonda Sola Mandalam. This royal order is carried out by Cēdirajan and witnessed by Nandyanar and others and written by the royal secretary Minavan Mūvenda-vēḷān.

Rajaraja II seems to have passed away from this world on the first of Kartigai or thereabouts in the year 1172 A.D. as is inferred from an inscription at Conjeevaram (No. 820, Vol. IV, S.I.I.<sup>1</sup>) leaving children of one and two years old. But this inscription is clear in stating that Rajaraja II had no sons fit for succession and coronation. If we should only consider whether the children mentioned above were males or females, we would be driven to the necessity of concluding that they were not males. Granting that the passage அபிஷேகத்துக்கு உரியன பின்னாகின்றி may mean that there was no person of proper age, we will, for the sake of argument, hold that the children were male minors and discuss the same at the proper place.

### III Issue.

We will take the third issue, *viz.* "There seems to have been great opposition, both open and secret, to the coronation of Rajadhiraja II from many quarters", first. This statement seems to have been based on line 13 where it is stated that திரு அபிஷேகம் பண்ணுவித்து உடன் கூட்டமும் காடும் ஒன்று பட்டுச்செல்லும்படி பண்ணிவித்தருளி...யனுமிகை செய்யாதபடியும் பரிகரி

<sup>1</sup> கடல்துழ்த்தபார்மாதரும்.....கோப்பர கேகரி பன்மரான திரிபுவனசக்கரவர்த்தி கள் ஸ்ரீ ராகிராஜதேவர்க்கு யாண்டு [து]\* ஆவது கார்த்திகை மாசத்து முதற் தெய்தினாள் உடையார் (2) ராகிராஜ தேவற்கு யாண்டு (86) ஆவது தைமாசமுதல் திரிபுவன சக்கரவர்த்தி கள் ஸ்ரீ ராகிராஜ தேவர்க்கு யாண்டு அ ஆவது திப்பிசிமாதம் வரை; யாண்டு பதினஞ்சி.

\* The S.I.I. supplies the omission as 8. But it should be 4. Then only Rajaraja's 19 would be Rajadhiraja's 4 and the year of Rajadhiraja's death would be 18 Thai or thereabouts.

த்து இவர்கள் னல்...ல் சேரப்படித்தும் பணி அழகுநாகச் செய்வதொருபடியும் பண்ணி. This order simply mentions that the minister-general is requested to see that the royal relatives (udan kūtṭam) and the country follow the order of the king. It is but just and natural at the time under consideration that any rival claimant to the throne may raise up the standard of rebellion in the State. To guard against such contingency His Majesty the king—the reigning monarch—Rajaraja II ordered his minister-general to see that the country enjoys peace. Up till now no inscriptional evidence has been adduced that there was any kind of disturbance in the kingdom. On the other hand we have it on record that a large army was raised not only in Cōlanād but also in Tondanād for service in conquering Madura. If there had been internal disturbances of the slightest nature even, there would be no possibility then for the foreign aggression of the Cōlas. Hence it may safely be concluded that the statement quoted in the beginning of the paragraph is not sustainable.

#### I Issue.

Now, as regards the first issue that Kulottunga III is the son of Rajaraja II and he was a minor of one or two years when his father breathed his last, we have to consider it in detail. We have already said that Rajaraja had no male issues, and the children were of one and two years. If they were male children, then there was no necessity for the sentence that the king passed away without any issue fit for coronation (l. 10 *supra*). It would have been clearly indicated in this detailed inscription if it was otherwise.

*Secondly*, there would have been no necessity for the king to order to find out a fit person for the throne, to look to previous arrangements nor to talk to Ediriliperumal (*vide* lines 11 and 12). Not only did he ask his minister to find out a fit person to the throne but also to try the selected person for four years and then to anoint and proclaim him to the world as king Rajadhiraja. I think I would be justified in drawing this inference from the passage எடுத்து நாலாந் திரு நட்சத்திரத்திலே ராஜாதிராஜ தேவரென்று திரு அபிஷேகம் பண்ணுவித்து. Had it not been for finding out whether the nominee is suitable or not the coronation need not wait for full four years. In corroboration of the statement that he was only anointed after four years, we find records of Rajaraja running till his nineteenth year, which are found at Tirumalavadi and other places.

*Thirdly*, supposing that Kulottunga was the son of Rajaraja II, then he could not have attended the Pandya succession wars. These wars ended before the end of Rajadhiraja's reign or exactly before the eighth year of his reign according to this inscription. In one of his inscriptions he says that he himself led the army, conquered the enemies and granted the kingdom to

its legitimate and right owner.<sup>1</sup> If he was Rajaraja's son he should be under ten years of age and he could not have followed the army to the battlefield at such a tender age. Nor would there be any necessity for the king to inform his minister-general to take away his family to a safe place in the kingdom (L. 10) from Āyirattali fortress (L. 8).

*Fourthly*, if Rajaraja had really a son, why should he order to distribute lands to his near relatives such as mother and sister. There is no warrant to hold that the mother and sister referred to therein are those of Rajadhiraja. In that case it would have been qualified with இவர் as is found in the beginning of the distribution. When it refers to the relatives of Rajadhiraja it suddenly stops there. This distribution clearly leads us to the conclusion that Kulottunga III was not his son.

*Fifthly*, there is precedent for holding that a near relation, say his next brother, would come to the throne during the minority of a rightful heir; cf. the line of Kandaraditya-Arinjaya and Rajendra and his brothers. Even there Uttamachola, the heir-apparent to the crown, was declared as such during the reign of his cousin Parantaka II. We have not come across any such inscription till now and those that have been found out now go to confirm the idea already formed that he was not the son of Rajaraja II.

From the impartial discussion of the above facts we are justified in holding that Kulottunga III is not the son of Rajaraja II.

## II Issue.

As regards the second issue whether Rajadhiraja was ruling as king or viceroy, we may confidently assert that he was ruling not as a viceroy but as a king anointed according to the custom of the Cholas. He has made many grants in his own name and seems to have assumed the title of Parakesari till his coronation and then the title of Rajakesari which was his right one. We have been told that the crown prince or the next heir to the throne is in the habit of styling with the same epithet of Rajakesari or Parakesari, the title of the ruling monarch. Rajadhiraja is no exception to this rule. The

<sup>1</sup> கவனித்துப் பூபலவாய்ப் பவளம்பெருக பொய்யாத நான் மறைவின், செயல்வாய்ப்பத் திருமகளும் கயமகளும் சிறந்துவாழ வொண்மதிபோற் கொடைவிளங்க வேல்வேந்த ரடிவணங்க, மண்மடந்தை மனமசிழ மணு நீதி தழைத்தோங்கச், சக்கிரமுஞ் செங்கோலும் திக்கணத்தூன் செல்ல.

(2) கற்பகாலம் புலிகாக்கப் பொற்பணமிந்த முடிபுணந்து, வேண்டிலிட்ட தண்டால் வீர பாண்டியன் படையேழுகம்படச், சிங்களப்படை மூக்கறுப்புண் டலகடல்பட வீரபாண்டியன், படும்படி தாக்கி மதுரையும் அரசும்நாமே.

(3) அடைந்த பாண்டியற்குளரி மலர்ந்த நியாகத் கொடியோடு வீரக்கொடியெடுத்துப்புண முழுதுடையாளோடும் வீற்றிருந்தருளிய கோபரகேசி பண்மரான திரிபுண சக்கரவர்த்திகள்.

—Inscriptions at Tiruppanandal.

inscription is also clear in this respect and there is no necessity to doubt the veracity of the statement that he ruled in his own name.

#### Rajadhiraja.

Having disposed of the three issues raised above in this manner and having come to the conclusion that Kulottunga III is not the son of Rajaraja II, we are under an obligation to find out his ancestry and the relations between Rajaraja II, Rajadhiraja II and Kulottunga III. In this inscription we read that Rajadhiraja was selected by the minister-general in the presence of Ediriliperumal. It may be argued whether we cannot read line 11 as the great-grandson of Vikrama Chola Deva. The word as written is *சேரநாடு*. It may be read as 'breathed his last' or grandson. But the following line (l. 12) does not allow us to hold that Edirili was a great-grandson of Vikrama Chola Deva. Edirili is said to be a minister in Arapakkam and other inscriptions. This inscription also says that it was determined in the presence of Edirili. If it was otherwise, that fact would have been clearly stated. We have to infer from the context that he was named Vikrama after his grandfather in his infancy and Rajaraja is the title assumed by him after his coronation. This is by the way.

It has already been shown that Kulottunga III cannot be a youth as was written in the Epigraphist's report for 1923-24, but he should have been a 'sturdy warrior that had passed the youthhood. In a poem called *Sankara Chôlan Ulā*, part of which has been published by the Madura Tamil Sangam two decades ago, we find the author tracing the genealogy of the hero of the poem called Sankara Chôla. A free translation of the lines would run thus : Sankara was like the tapasya of his father *Sangaman* and a real support to his brothers, *Nallaman*, the Chola king who was more than a match to Vallabha and others of the solar race, and to his next brother Kumāra Mahidara who ruled the country between the Venkata hill and the sea, put to shame Lankāpuri and other veterans and won many a battle. If Kumāra Mahidara was the conqueror of Lankāpuri Dandanayaka as mentioned in this poem, Kulottunga III of the inscriptions should naturally be this Kumāra Mahidara. In the *Ulā* quoted above, Nallaman and Kumāra are stated to be the successors of Rajaraja II. In another work called *Kulōttiingan Kōvai*, he is called by the various names of Kumāra Mahidara, Kumāra Kulottunga, Sangamaraya Kulottunga, etc., *vide* stanzas 38, 40, 41, 42, 53 and 89. It has been clearly established that this *Kōvai* was sung in praise of Kulottunga III, *vide* *Sen Tamil*, Vol. III. Hence it is clear that Nallaman *alias* Rajadhiraja II and Kulottunga III are brothers and sons of Sangama, a descendant of the Chola line. Having proved that they are brothers and sons of the same father by literary evidence and having come

to the conclusion that Kulottunga III cannot be the son of Rajaraja II according to the inscriptions and Pandya successional wars, we may safely conclude that Rajaraja had no son fit for coronation as described in this inscription.

We have also shown above that Rajadhiraja was not a near relation of Rajaraja and he was really a ruler of Chola dominions for about sixteen years and was succeeded by his brother Kumāra Mahidara under the title of Kulottunga III.

#### Conclusion.

We learn four things from this inscription. *Firstly*, that Rajaraja died a natural death after a protracted illness without proper heir to the crown. *Secondly*, he ordered his minister-general to look after the kingdom and also to select a person according to custom from the correct line. *Thirdly*, the wars of the Pandya succession and the part played by the Cholas. *Fourthly*, some grant of lands to certain relations near and distant. I may state here that epigraphs in general and this inscription in particular throw a lucid light on the early history of South India and clear some knotty points. I conclude this long article with a fervent appeal not only to the public but to the Government also that more time and energy may be spent in bringing out the history of South India from the hidden inscriptions.

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## STUDIES IN BIRD-MYTHS, No. XXII.—ON A SECOND ÆTIOLOGICAL MYTH ABOUT THE INDIAN BLACK-HEADED ORIOLE.

BY PROF. SARAT CHANDRA MITRA, M.A., B.L.

I HAVE already shewn that there is current, in the district of Faridpur in Eastern Bengal, an ætiological myth about the Indian Black-headed Oriole. The principal incidents of this myth are to the effect that a mother-in-law had several daughters-in-law, but that she hated the youngest daughter-in-law with the greatest of rancour and persecuted her in many ways. At last, being unable to endure her mother-in-law's cruel ill-treatment any longer, she besmeared the whole of her own body with the paste of the yellow turmeric, and placed upon her own head an earthen pot (*hāṇḍī*) blackened with soot and went away from the house, crying out: "*Kuṭum āy*", "*Kuṭum āy*", (that is to say), "O guests and relatives! you are (now) welcome (*lit.*, you may now come), though you have been the cause of my death." She was subsequently metamorphosed into the yellow-plumaged and black-headed bird which now bears the appellation of the Indian Black-Headed Oriole or *Benc Bon* or *Halde Pākhī*.

For the purpose of accounting for the origin of the bright yellow plumage and of the black head and throat of the Indian Black-headed Oriole, the primitive myth-maker of the district of Faridpur in Eastern Bengal has described the persecuted youngest daughter-in-law as having besmeared herself with a paste of the yellow-coloured turmeric and having placed a soot-begrimed earthen pot upon her own head.\*

But there is a second variant of the preceding ætiological myth which, I am inclined to think, must be prevalent in some other parts of Eastern Bengal, although the gentleman who has collected it has not mentioned the name of the district in which it is current. It is to the following effect:—

Once upon a time, there lived a very wealthy householder. He had a very beautiful daughter who was married to a young and learned bridegroom of good and respectable family connections.

One year after the daughter had been married, the son-in-law paid his first visit to his father-in-law's house and was there entertained in a sumptuous style.

In order that he may be treated to delicious and tasty viands, his mother-in-law herself went to the kitchen to cook and set about to prepare the *dāl*

\* *Vide* my article entitled: "*Studies in Bird-Myths, No. V—On an Ætiological Myth about the Indian Black-headed Oriole*" in the *Quarterly Journal of the Mythic Society* (Bangalore), Vol. XV, pp. 148—152.



or pulse-soup. She, *three times*, put into the pulse-soup the paste of the yellow-coloured turmeric. But, in spite of her repeated efforts, the soup did not assume the right yellow colour which is the proper tinge of pulse-soups. At last, in order to give vent to her feelings of desperation, she put all the available turmeric-paste into the *dāl* or pulse-soup. But, still, it did not assume the right yellow tinge. Thereupon, she became almost mad and broke the earthen-pot containing the pulse-soup upon her own head, and, assuming the form of the Indian Black-headed Oriole, flew away. This bird's body is covered with yellow plumage; but its head, wings and tail are coloured black. The plumage of its body is yellow on account of the yellow colour of the turmeric-paste which was in the pulse-soup; its head, wings and tail are black, because they are begrimed with the soot which was on the earthen pot containing the pulse-soup. It is for this reason that this bird is also called the *Yellow-Bird* (हल्दे पाखी).\*

On comparing the foregoing myth with that from Faridpur, I find that the mythmaker, who has invented the last-mentioned folk-tale, has described the mother-in-law, who was unable to impart the right yellow hue to the pulse-soup, as having been maddened by her feelings of despondency at her own unsuccess, and as having subsequently changed into the Indian Black-headed Oriole. The gods must have felt commiseration for her pitiable condition and, therefore, metamorphosed her into the aforementioned bird.

But the fabricator of the folk-tale from the district of Faridpur has set forth quite a different motive which led to the metamorphosis of the heroine of the story into the Indian Black-headed Oriole. Being unable to endure her mother-in-law's cruel ill-treatment, she besmeared her own body with the yellow-coloured paste of turmeric and placed a soot-blackened earthen pot upon her own head and left the house, crying out "*Kuṣum āya*", "*Kuṣum āya*". The benign gods took pity upon her and, therefore, changed her into the Indian Black-headed Oriole.

We have already seen that the heroine's grief at the death of a relative (as in the case of the myth from Sylhet), her grief and feeling of repentance at having killed a kinswoman by mistake (as in the case of the myth about the Spotted Dove), her inability to endure the cruel ill-treatment by a mother-in-law, have excited the sympathy of the merciful gods who have always metamorphosed the suffering heroines into some kinds of birds. But, in the myth which forms the subject-matter of this paper, we come across the curious incident that the heroine's despondency aroused the pity of the benign gods who changed her into the Indian Black-headed Oriole.

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\* *Vide* the Bengali book entitled : *Ājgubī Janmakathā* (or "The Wonderful Birth-Stories") By Umesh Chandra Nāg. Published by the Sisir Publishing House. 1329 B.S. Pages 15-18.

STUDIES IN BIRD-MYTHS, No. XXIII.—ON A  
BIRD-MYTH FROM THE DISTRICT OF  
TIPPERA IN EASTERN BENGAL.

BY PROF. SARAT CHANDRA MITRA, M.A., B.L.

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A KIND of crane-like bird is found in the district of Tippera in Eastern Bengal and is known there under the vernacular name of *Nāoya*. But its scientific name is unknown to me. Regarding this bird, the undermentioned pathetic myth is narrated by the people of that district :—

Once upon a time, a cultivator had two daughters. One day, the two sisters, went to their *Jum*-field on the hill-side to gather vegetables and wild fruit. After they had finished gathering the vegetables, they started to return home, and on their way came across a tree which stood on the bank of a hill-stream. They decided to make a swing on it and swing in it. After the elder sister had finished swinging, the younger one got on to the swing and was swung to and fro by her elder sister rather violently. At this the former got frightened and told her sister not to swing her so violently. But the elder sister, instead of paying any heed to her expostulations gave the swing such a violent push that the younger sister toppled down from the swing and fell into the water of the streamlet below. A huge *Boāl*-fish (*Wallago-atla*) was lying there and, seeing her, instantly swallowed her up so that the girl's head remained near the fish's throat.

Leaving her to her fate, the elder sister went home and gave her parents an unsatisfactory explanation about her sister's disappearance. The sorrow-stricken parents and relatives searched far and wide for the missing girl all the night long, but they could not find any trace of her that night. Next morning, when the mother was washing her clothes on a plank which was fixed to the bank of the streamlet she heard somebody crying with a feeble voice from beneath that plank. At last she found that the cries were proceeding from a human being which was inside the belly of a huge *Boāl*-fish lying there. Sending for a scythe and cutting open the fish's belly with it, she extricated her younger daughter therefrom, took her home and restored her to her former self by careful nursing.

After the girl had regained her former spirits she related to her parents the circumstances under which her elder sister had shoved her from the swing by violent pushing and she had fallen into the water of the streamlet and been swallowed up by the huge *Boāl*-fish. Hearing this account of their

elder daughter's wickedness, the angry parents made up their minds to punish her the next day.

Accordingly they constructed a pig-sty and, by a trickery, made their elder daughter enter it. When she had done so, they fastened the door of the sty and told her that she must remain imprisoned there by way of punishment.

After she had remained in her prison for a few days, she, one day, saw a flock of the crane-like *Nāoya* birds flying over the place of her imprisonment. Cutting open the fastenings of the sty with a knife which she had procured by trickery from her younger sister, she came out from her prison and begged the birds for some feathers from their wings. They complied with her request. She sewed these feathers into two wings which she fastened to her two arms and by means of flapping them she flew on to the top of a lofty hut.

When the news of the girl's flying on to the top of the hut got noised abroad, her parents and neighbours came to her and entreated her with tears in their eyes, not to leave them. But the girl did not pay any heed to their weepings and entreaties and said that she had already made up her mind to leave them and go away with the *Nāoya* birds, because her parents had punished her very cruelly. At last being much moved by her repentant parents' entreaties she said that she would appear to them once every year on the occasion of the *Māmitā* Festival. This festival is held in the district of Tippera after the Durga-puja and corresponds with the *Navānna* Festival of Lower Bengal, when the newly harvested paddy is cooked and dedicated to the gods.

[The gentleman who has collected and published this myth has not stated whether or not the flocks of *Nāoya* birds are actually seen in the Tippera villages on the day of the *Māmitā* Festival. Any gentleman of Tippera who may read this paper will greatly oblige the writer hereof by making enquiries about this popular tradition and communicating the results thereof to the Mythic Society of Bangalore.\*]

If we analyse the foregoing myth, the leading incidents thereof are found to be the following :—

1. An elder sister maltreats her younger sister ;
2. Hearing of this the parents severely punish their elder daughter ;
3. Being disgusted with this severe punishment the elder girl affixes wings to her arms and flies away with other birds.

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\* For this bird-myth from Tippera, I am indebted to an article (in Bengali) entitled "*Nāoya Pākhi*" (or "*The Nāoya Bird*") which has appeared in the Bengali Monthly Magazine "*Sirā Sātāt*" for *Chaitra*, 1332 B.S. (March-April, 1926) pp. 458--466.

The question arises, is there current among the neighbouring hill-tribes of Assam any bird-myth in which the foregoing story-elements occur.

We are surprised to find that, among the Garos of Assam, there is current a bird-myth in which the aforementioned second and third story-elements occur. The Garos are a branch of the Tibeto-Burman family and number a little more than one hundred thousand souls. They live in the dense irregular mass of hills of low elevation which are situated to the west of the Khasi Hills.

On examining the folklore of this wild tribe, we find that there is current among them the folk-tale of "*The Story of the Doves*". It is to the following effect:—

A rich man had four daughters of whom the eldest two were named Awil and Sangwil. They were very much disliked by their grandmother who often made false accusations against them to their parents. In consequence of these lying complaints, their mother used to beat them mercilessly.

Having, one day, heard a false accusation against them from their grandmother, their mother confined Awil and Sangwil in a room and kept them starving for a long time. Getting disgusted with this cruel treatment at the hands of their mother, the two sisters metamorphosed themselves into doves. At first, they flew to their mother who was working in the field and in cooing notes, informed her of the wrongs that had been done to them on the lying complaints of their grandmother. The same thing they repeated to their father who had gone to the market.

Having heard the doves' note of complaint, the parents hastened home and were grieved to find that their two eldest daughters had disappeared. Returning to the birds, the sorrow-stricken parents told them to re-assume their human forms. But they refused to do this.\*

On comparing the two myths, we find that the second incident of the Tippera bird-myth corresponds with the punishment of the two girls, Awil and Sangwil, in the Garo story; and the third element of the Tippera story corresponds to the two girls metamorphosing themselves into a pair of doves, as is related in the Garo bird-myth. Are we therefore justified in concluding that the people of Tippera borrowed the myth from the Garos or *vice versa*? I am inclined to think that there has been no mutual borrowing. On the contrary, there are so many differences between the two folk-tales that we are justified in concluding that the two bird-myths have been evolved independently of each other.

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\* *The Garos*. By Major Playfair, London; David Nutt, 1909, pp. 119—128.

We have already seen in the Tippera bird-myth the younger girl was swallowed up by a huge *Boal*-fish and that she was rescued therefrom by cutting open the fish's belly.

The incident of "*living in animals' bellies*" frequently occurs. For instance in one tale, the hero lives four days and four nights in an alligator's belly. In a second story, the heroine stays twelve years in a monster fish's belly while crow, jackal and snake go down into it to see what is there. In a third tale the hero lives successively, for a year, in a dog's, a cow's and a horse's belly and is vomited up at will. [*Vide* Miss Stokes' *Indian Fairy Tales*, pp. 66, 124. Also Miss Frere's *Old Deccan Days*, p. 188.]

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## NOTES.

### Evolution and War.

BY DR. JOHN W. GRAHAM.

DR. JOHN W. GRAHAM of London gave a lecture on the above subject on January 20th, to the Mythic Society.

He said that the Darwinian theory of evolution by natural selection, the struggle for existence and the survival of the fittest, based upon chance variations, was often wrongly used to give a false sanction from the side of nature to war. He would try to show that in this deduction there were several fallacies.

1. The Lamarckian theory of evolution, which preceded the Darwinian, made the chief evolutionary factor to be effort and habit and unconscious memory, depending upon the inheritance of acquired characters, thus immensely accelerating the pace of progress compared with that dependent upon variations which would only occasionally occur in profitable directions. It also gave a very desirable continuity to the process of nature. We find, under this theory, that elementary mental and psychical qualities, whose predominance we recognized when we reached the human period, were dimly foretold among animals, as Prof. Bose has lately found in plants an elementary nervous system. It does not fit in with our scientific instincts to believe that selfishness operating by death dominated progress till man appeared, and that then sympathy took its place. Also the lecturer read extracts from Darwin, Spencer, Kessler, J. Arthur Thomson, Dr. Chalmers Mitchell and Havelock Ellis, to show that natural selection itself included large use of unselfishness and sacrifice.

Instances of the reasonableness of the inheritance of acquired characters were given from the thickness of the skin on the sole of bare feet, the elephant's trunk, the blind fish in eaves in Kentucky, the small concealed remnants of the legs of the whale, wingless beetles at Madeira, the wonderful mimicry of sticks and dead leaves by insects, and other facts, sometimes difficult to interpret. Experiments on maiming animals, most unpleasant and undesirable, had resulted in some evidence for inheritance, but they were not decisive.

Not being a biologist he could not give an authoritative opinion, but it appeared that about half the professors of biology were on each side, and many were very cautious about giving an opinion at all. The Lamarckian theory had been supported by Dr. Erasmus Darwin, Charles Darwin's grandfather, and in the latter's lifetime, by Samuel Butler, in his *Life and Habit* and other books. But he had little contemporary vogue. He had come into the public eye again lately, largely through the advocacy of Mr. Bernard Shaw. In the Preface to *Back to Methusaleh* and in other Prefaces, a very cogent defence of the Lamarckian theory was accessible.

It was at present a large issue in Biology, comparable to Free-Will and Determinism in philosophy, to Mechanism and Vitalism in physiology, and to Protection and Free Trade in economics.

2. In any case natural selection retired into the background when man became man. We may take that date to be when man first stood erect and had his hands free from use in walking. The many things he did with his hands caused a great increase of thought, and so of brain development. This was our chief difference from the apes in physical qualities. The human brain was four times the size of the largest ape brain. This growth looked long in each child, and caused the beginning of a human family, father, mother and children living together for years, and the children remaining helpless, undergoing education, which now covered about one-third of life. This gave a nursery for the affections. The human mother first stood up against the brute law of survival.

Since then Sympathy has been the chief evolutionary factor. It has led to co-operation, and manifold helpfulness. A sympathetic coherent society survives. Every charity we practise, the care of orphans, the aged, the sick, is flying in the face of the survival of the fittest, under which process all such should die as failures. All law and order, the suppression of stealing and murder, is a denial of unfettered competition.

Nor if we want an increase of physical strength do we wait till in the course of ages our physique slightly improves. We make machinery, and multiply our power by coal and oil and electricity. There is not much left in human society of sheer death through disqualifying variation.

3. Helpful competition has, in any case, nothing to do with war. War kills,—indeed kills the best,—wastes, maims, blinds, maddens men. The ages are long gone by when even any profit can be made by war. We cannot enslave our prisoners, nor kill a whole people. War and the preparations for it are impoverishing every state in Europe. The weak, the medically unfit, remain at home to be fathers of the next generation. War is terribly dysgenic. The stature of the French army has been lowered three times since Napoleon I killed in war all tall Frenchmen.

India is full of the wrecks of ruined empires. The Moghul empire grew rotten in Aurangzeb's time, and the people starved. Golconda, Patna, Conjeevaram, are ruins of warlike capitals. The valleys of the Euphrates and Tigris are a desert after a series of conquering empires:—Accad, Assyrian, Babylonian, Persian, Greek, Roman, Turk. They were the richest part of the ancient world.

On the contrary Jews, Armenians, Scotsmen and others are the most flourishing people in the world, through practising the qualities which lead to survival:—industry, saving, intellectual ability, good health, and considerable families. The acts of peace lead to survival.

4. War has always produced despotism, of which many illustrations were given, and tends to ferocity in manners and the absence of the gentler emotions. Freedom and peaceful intercourse were factors in evolution.

Unless we could stop war no miracle would intervene to save London and Madras from the fate of Nineveh and Babylon.



## The Divine in Man.

ANOTHER LECTURE BY DR. JOHN W. GRAHAM, AT THE MYTHIC SOCIETY.

MANKIND has always made its gods out of what was most wonderful or awe-inspiring in human nature and in the world without. It has generally failed to unify them and rise to a high conception of one God. And the god who represented a single passion was immoral.

I also am trying to build out of the highest experiences of human nature a God based on common experience. I shall ask you to admit three facts real to us all.

The first is the futility of the self-centred life. Wealthy and powerful people have at times tried to sail along the tips of the waves of human experience, making their life an endless succession of pleasures, leaving the toil and trouble to others. And it has always been a failure, ending in weariness and boredom at the best, in crime and insanity at the worst.

But the men and women we know, who are the greatest upto their faculties, are people who are always occupied, whose correspondence is large, who are tired every night, who have undertaken voluntary responsibilities and not spared themselves. While a man who shirks responsibility takes no risks, guides himself by guarding his own leisure, his own safety, profit, or reputation, becomes a smaller and smaller personality, till you can hear his soul rattling inside him, like a kernel in a nutshell.

Human personality then seems not to be like a tank which has less in it the more you take out, but like something which takes more in from a supply apparently without limit, the more you take out of it—like a Railway Station or a nerve centre in the spinal cord. We appear then to be distributing stations of nerve power and spiritual energy from a great spirit around us, in whom we live and move and have our being.

Besides greatness, consecration produces happiness, charm and increased daring. It is plainly in accordance with human nature.

We have therefore scientific ground for believing that we are parts or organs of an enveloping Spirit in whose service our nature is best satisfied.

My second fact is the predominance of Love in human joys and sorrows. It is our strongest passion and the green and gold of life. It is round us from birth, in marriage, children and grandchildren. Our happiness may be measured best by the extent and the intensity with which we love and are loved. This must mean that the great Spirit is Love or has Love as his method. Love is what makes two people one, it unites. It is the law of gravitation of the world of souls. Some may say that God is Love.

My third fact is the reality and validity of Prayer, universally attested by the provision of prayer books for people who could not make their own. So the spiritual has a mechanism of transport and communication more wonderful than the vibrations in the ether.



That is the end of my constructive thought. The Personality of God is not taken away, if we think of personality as a spiritual radiation of influence. The commonest extension of personality is in having children and establishing the intimate relation of father and mother to children. We use that relation when we call God our Father.

From this scheme of the participation of every human being in the Divine Nature, comes the urgent need to dominate the animal nature within us, to fight against sin, and for the purity that enables us to see God. Thus and thus only can we become perfect agents of His purposes.

Then, in public morality, this unity in one another and in God forbids war, forbids race hatred, forbids the inequality and contempt in caste, and forbids the degradation of women, and the denial of their complete equality of opportunity with men.

Apart from all the system that I have sketched, from the Father I have claimed to discover, stands the careless suffering widely caused by Nature, whose laws care not for mankind, but is called epidemics, famine, diseases and accidents, and maim and spoil lives—as blind and leprous beggars testify.

Yet I cannot satisfactorily leave the world with this contradiction, under two Powers, one working against the other. I will try to make One. I will build five bridges between the spirit of man and the world without.

1. Our bodies are made of the materials given by the outer world, of ordinary chemical elements, and it is not easy to think of oneself as under two gods.
2. Our intellectual gifts have all been formed by practising on the raw material of nature.
3. Our moral character has similarly come about.
4. We find in Nature our sense of Beauty gratified.
5. In between man and matter stand all the animals and plants in one connected evolution.

So I conclude it must all be One. But of that ultimate One, the whole Universe, the Absolute, I know nothing. We are all inside the Universe with limited faculties, and cannot go and judge it from outside as a whole.

I turn back to my home God, to my Father in Heaven, whose place is that of bringing order into wild nature, through our service, making the flowers of human love and character bloom in the desert of wild nature.

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## REVIEWS.

### Kiriya Kanike

OR "OFFERINGS BY THE YOUNG."

Published by the Karnataka Sangha, Maharaja's College, Mysore. 1928.

THESE collections of Kannada lyrics composed by a few loving students, following the lead of Professor B. M. Srikantia, given in his *English Geethaganu* are, appropriately enough, dedicated to him. The lyrics do not follow the old, orthodox style of Kannada poetry and may not, perhaps, for that reason commend themselves to an extent to the recognized *Pandits* of old Kannada. New and refreshing fields for the imagination of a poet are not few, and where ardent, youthful enthusiasm full of buoyant hope is combined, the result is bound to be interesting and we have no doubt, in course of time, some of these lyrics will take their proper and deserved place in Kannada literature. 'The Pied Piper of Hamelin' by R. Browning is responsible for the finest of the lyrics in the collection—Bommanahalliya Kindari Jogi. So, Parijata is based on Wordsworth's 'To the Small Gelandine'. Likewise, 'Breathes there the man with soul so dead' by Sir Walter Scott, 'The Light of Other Days' by Thomas More, 'The Solitary Reaper' by Wordsworth, and 'The Lord's Messengers' by Mathew Arnold, have been impressed upon for Desabhakti (patriotism), ದೇಶ ಭಕ್ತಿ (The Light of a Former Life), a Malnad girl and Devavaharikavaru. The difficulty of bringing the beauty and the spirit and the meaning of the original in translations is felt here as much as in Banadi of Mr. B. M. Srikantia, but nevertheless the effort is very praiseworthy indeed.

Of the original poems included in the selection, we would like to invite the attention of the reader in particular to Hereyabuvu, which forms very delightful reading.

A few of the lyrics appear as regular songs with a chorus. Would it not be better if the *ragas* and *thalas* are indicated to facilitate singing? The farmer at the harvest time dances and the Kolâtam performers at Car festivals etc., all over the Karnataka, would be grateful.

This little volume deserves to be in the hands of Kannadigars, and many of the poems, we trust, will become familiar with the masses, to whom their rhythmic style and simplicity of language will be bound to appeal. The book is neatly got up and excellently printed by the G. T. A. Press, Mysore. B. R.

### Kannada Kaipidi.

HANDBOOK OF KANNADA, VOL. I. (Price Re. 1.)

THIS volume is printed by the G. T. A. Press, Mysore, and published by the University of Mysore. A handbook of Kannada Language and Literature has long been a desideratum and it is none too soon, therefore, that this first volume has been brought out. For the accuracy of the information contained, for the careful research conducted into the archives of the language and literature, and for the general usefulness of the matter given, from the point of view of Kannada, the names of the authors are a sufficient and convincing guarantee. One of them, Mr. B. Krishnappa, unfortunately, passed away from our midst since,

The others of the Committee, headed by Mr. B. M. Srikantia, have done very valuable work in placing before Kannada students in an orderly and intelligible form the facts pertaining to the mother-tongue.

The first part in this volume deals with the grammar of old Kannada, the second with Kannada prosody, the third with Figures of Speech. The next volume will contain the history of Kannada Language and Literature in Parts IV and V.

We should have thought that an account of Kannada Language and its Literature should have preceded, not followed, grammar, prosody and figures of speech. But, perhaps it is as well that, from the point of view of the student, grammar comes first. Ten chapters and two appendices, covering 94 pages, deal with Halegannada grammar, in which the old forms on the various parts of speech are traced on to their present survivors. The first appendix gives the *dhatus* of the three kinds in alphabetical order, with their meanings in Kannada and in English and forms a very useful piece of reference. The other appendix gives, also in alphabetical order, the Kannada and Sanscrit forms of several words—(ಅಧ್ಯವ and ಪಕ್ಷಮ).

The second part, as stated already, refers to prosody, rules of which, unlike rules of grammar, are only applicable to poetical compositions. These are detailed in three chapters and the rules are detailed and illustrated with copious extracts from Kannada works. The appendix gives arithmetical rules to find out the *vritta* (metre) of any given piece of poetry.

The third and last part of this volume is devoted to Alankara or Figure of Speech and elaborately describes in over 200 pages and thirteen chapters, the Kannada figures of speech. In the first chapter, a short historical sketch of the authors from the first century onwards who employed figures of speech is outlined. So far as Kannada Literature is concerned, Nripatunga (814-877 A.D.) is the oldest author and he employed it in Kavirajamarga. The publishers of the handbook in a table at pp. 144-5 indicate the ancient Indian writers who employed figures of speech. In this branch of the subject as elsewhere, Kannada is very largely indebted to and follows Sanscrit. Space forbids a detailed consideration of the various divisions of this portion of the volume in which figures of speech have been dealt with. We look forward with eager interest to the second volume of the Kannada handbook.

S. S.

### Satyashodhane or My Experiments with Truth.

Vols. I—II. Viswakarnataka Office, Bangalore City, 1928. (Price 12 As. each.)

MAHATMA M. K. Gandhi's articles on 'My Experiments with Truth' have induced a lover of the Kannada language to translate them for the benefit of the Kannada public and we congratulate the publishers on the excellent brochures under review which are compiled from the translations published in the 'Viswakarnataka'. The life of Gandhiji is of absorbing interest to all, particularly to Indians, and as such, the services of the anonymous author to the Kannadigars cannot be over-praised. At the close of each volume is given an explanatory note with reference to several terms and allusions in the body of the text. The rendering is done in an easy and intelligible style.

M. V.

## Books received during the Quarter ending 30th June, 1928.

### Presented by:—

#### The Authors—

1. Was Jesus Christ a Flesh-Eater or a Vegetarian?
2. The Welsh National Anthem—A Tamil Song: Henwladfy Nadan.
3. A Tamil Pun of St. Paul.
4. Biblical Reference to the Mourya Dynasty of India and the Date of Psalm 68.
5. Was Jesus Christ a Vishvakarma Brahmana?  
—All by M. S. Ramaswami Aiyar, B.A., M.R.A.S.
6. Archives De L'inde Francaise: Correspondence de Conseil Superieur De Pondicherry Et De La Compagnie Publiée Avec Introduction: Tome V—1755—1759 by Alfred Martineau.
7. The Decay of the Portuguese Power in India (Reprint from the *Journal of the Bombay Historical Society*) by Rev. H. Ueras, S.J., M.A.

#### The Smithsonian Institution, Washington—

1. Report of the Acting Secretary of the Smithsonian Institution for 1928.
2. Drawings by A. De Batz in Louisiana: 1722-1735, Smithsonian Institution, Vol. 80, No. 5, by David I. Bushnell, Jr.
3. Smithsonian Institution, Miscellaneous Collections, Vol. 80, No. 7: The Aboriginal Population of America North of Mexico by James Mooney.
4. Do. 80-4: Religion in Szechuan Province, China, by David Crockett Graham.

#### Bhandarkar Oriental Research Institute, Poona—

1. Report for 1926-27.
2. Annals of the Bhandarkar Oriental Research Institute, Poona, 1927-28.

#### The Jain Mittra Mandal—

1. Proceedings of the 2525th Sri Vir Birthday Celebrations.
2. Lord Mahavira by Kamta Prasad Jain.
3. Lord Parsva by H. Bhattacharya.

#### Government of India—

1. The Bakhshālī Manuscript, Parts I and II: Archæological Survey of India, New Imperial Series, Vol. XLIII—Parts I and II by G. R. Kaye.
2. Memoirs of the Archæological Survey of India, No. 25: Bas-reliefs of Badāmi by R. D. Banerji, M.A.
3. Chalukyan Architecture: (Archæological Survey of India, 1926) by Consens.

4. Memoirs of the Archæological Survey of India, No. 34: A New Inscription of Darius from Hamadan by Prof. E. Herzfeld.
5. Do. do. No. 33: Pallava Architecture, Part II (Intermediate Māmalla Period) by A. H. Longhurst.

**Messrs. D. B. Taraporewalla & Sons, Bombay—**

Bhagavad-Gita—An Exposition: by Vasant G. Rele.

**Government of Madras—**

1. A Descriptive Catalogue of the Telugu Manuscripts in the Government Oriental Manuscripts Library, Madras, Vol. II—Prabandhas: Srīngara Prabandhas, Part II.
2. Do. do. Vol. III—Religion and Philosophy (Saivism). Both by S. Kappusami Sastri.

**Government of Mysore—**

1. Report on Public Instruction in Mysore for 1926-27.
2. Report of the Department of Industries and Commerce for 1926-27.
3. Report on Criminal Justice in Mysore for 1926-27.
4. Report on Civil Justice in Mysore for 1926-27.

**Government of Travancore—**

Sri Mulaṁ Malayalam Series No. XIX: Bhāshā Rāmāyana Champu by Kolatteri Sankara Menon.

**Kern Institute, Leyden, Holland—**

Annual Bibliography of Indian Archæology for the year 1926.

**Karnataka Sangha, Maharaja's College, Mysore—**

Kiriya Kanike or Offerings by the Young.

**The Editor, Vishvakarnataka, Bangalore—**

1. Satyashodhanē or My Experiments with Truth (Mahatma M. K. Gandhi's Autobiography in Kannada), Vol. I.
2. Do. do. Vol. II.

**Purchased :—**

1. The Life and Correspondence of Sir John Malcolm by G. W. Kaye, Vol. I.
2. Do. do. Vol. II.
3. Life of Lord Curzon, Vol. I, by Earl of Ronaldshay.

## EXCHANGES.

Editors of:—

1. "HINDUSTAN REVIEW," *P.O. Box No. 2139, Calcutta.*
2. "INDIAN ANTIQUARY," *British India Press, Mazagaon, Bombay.*
3. "CEYLON ANTIQUARY," *The "Times of Ceylon", Colombo.*
4. "MODERN REVIEW," *91, Upper Circular Road, Calcutta.*
5. "THE HINDU MESSAGE," *Srirangam.*
6. "WEDNESDAY REVIEW," *Teppakulam, Trichinopoly.*
7. "THE SOUTH INDIAN RESEARCH," *Vepery, Madras.*
8. "THE EASTERN BUDDHIST," *39, Ono Machi, Koyama, Kyoto (Japan).*
9. "THE CHRISTIAN COLLEGE MAGAZINE," *Madras.*
10. "THE EDUCATIONAL REVIEW," *Mount Road, Madras.*
11. "THE VEDIC MAGAZINE," *Gurukula, Kangri, District Bijnor.*
12. "ZEITSCHRIFT DER DEUTSCHEN MORGENLANDISCHEN  
GESELLSCHAFT," *Halle, Germany.*
13. "THE SANSKRIT BHARATHI," *Burdwan, Bengal.*
14. "THE JOURNAL OF THE AMERICAN ORIENTAL SOCIETY,"  
*New Haven, Connecticut, U.S.A.*
15. "THE KALPAKA," *Tinnevely.*
16. "EVERYMAN'S REVIEW," *Madras.*
17. "MAN," *The Royal Anthropological Institute, London.*
18. "DJAWA," *Kanarillaan, Kadipolo, Solo.*
19. "MAN IN INDIA," *Ranchi, B.N.Ry. (India).*
20. "THE KARNATAKA GRANTHAMALA," *Mysore.*
21. "THE EVENING MAIL," *New Tharagupet, Bangalore City.*
22. "THE JAIN GAZETTE," *Parish Venkatachala Iyer Street,  
George Town, Madras.*
23. "THE INDIAN SOCIAL REFORMER," *Navsari Chambers,  
Outram Road (opposite Hornby Road), Fort, Bombay.*
24. "PRABUDDHA BHARATA," *Adwaita Asrama, Mayavati P.O.,  
Almora Dist.*
25. "THE SHAMA'A," *Aghore Mandir, San Thome, Madras.*
26. "VISHVA-BHARATHI," *10, Cornwallis Street, Calcutta.*
27. "NAVASHAKTI," *Dharwar.*
28. "THE SHRINE OF WISDOM," *The Hermetic Truth Society, Lincoln  
House, Acacia Road, Acton, London (21-3).*
29. "WELFARE," *91, Upper Circular Road, Calcutta.*
30. "MYSORE BLUE BOOK AND PUBLICITY JOURNAL," *Bangalore.*
31. "BUDDHIST ANNUAL OF CEYLON," *Colombo.*
32. "KARNATAKA SAHITYA PARISHATPATRIKA," *Bangalore.*
33. "EPIGRAPHIA INDO-MOSLEMICA," *Simla.*

34. "YOGAMIMAMSA," *Kunjavana, Lonavla, Bombay.*
35. "MAHARAJA'S SANSKRIT COLLEGE MAGAZINE," *Mysore.*
36. "THE MYSORE GAZETTE," *Librarian, Public Offices, Bangalore.*
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38. "INDIAN STORY TELLER," *164, Cornwallis Street, Calcutta.*
39. "THE GUARDIAN," *86, College Street, Calcutta.*
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42. "AL-KALAM," *Bangalore.*
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*No. 1, 1st Road, Chamarajapet, Bangalore City.*
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48. "RANGABHUMI," *Basavangudi, Bangalore City.*
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55. "THE INDIAN THINKER," *Anantha Rama Varma Press, Fort, Trivandrum.*
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57. "SWADHARMA," *No. 1647, Desai Oni, Dharwar.*
58. "BHARATI," *Post Box No. 212, Madras.*
59. "SANATHANA DHARMA SANJIVINI," *No. 445, Kempnananjamba Agrahar, Mysore.*

**Publications from :—**

60. THE DIRECTOR OF PUBLIC INSTRUCTION, *Poona.*
61. THE DIRECTOR-GENERAL OF ARCHÆOLOGY, *Simla.*
62. THE GENERAL SECRETARY, BIHAR & ORISSA RESEARCH SOCIETY, *Patna.*
63. Do. "THE ROYAL ASIATIC SOCIETY,"  
*Bombay Branch, Bombay.*
64. THE GENERAL SECRETARY, ASIATIC SOCIETY OF BENGAL,  
*1, Park Street, Calcutta.*
65. Do. THE INDO-FRENCH HISTORICAL SOCIETY,  
*Pondicherry.*

66. THE GENERAL MUSEUM OF FINE ARTS, *Boston, Mass., U.S.A.*
67. THE REGISTRAR, *Chief Secretariat, Fort St. George, Madras.*
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*172, Hornby Road, Fort, Bombay.*
83. ASSOCIATION FRANÇAISE DES AMIS DE L'ORIENT,  
*Musée Guimet, Place d'Iena, Paris (XVI).*
84. THE ANDHRA HISTORICAL RESEARCH SOCIETY, *Rajahmundry.*
85. THE TELUGU ACADEMY, *Cocanada.*
86. THE GREATER INDIA SOCIETY, *91, Upper Circular Road, Calcutta.*
87. BOMBAY HISTORICAL SOCIETY, *Exchange Building, Sprott Road,  
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92. ASSISTANT ARCHÆOLOGICAL SUPERINTENDENT FOR  
*EPIGRAPHY, Madras.*

**The President of:—**

93. THE KERN INSTITUTE, *LEIDEN (Holland).*

**The Director of:—**

94. MUSÉE GUIMET, *6, Place d'Iena, Paris (XVIc) France.*



## ALL-INDIA ORIENTAL CONFERENCE.

The Fifth Session of the All-India Oriental Conference will be held at Lahore, from the 19th to the 23rd of November, 1928.

The objects of the Conference are the following :—

- (a) To bring together Orientalists in order to take stock of the various activities of Oriental Scholars in and outside India.
- (b) To facilitate co-operation in Oriental studies and research.
- (c) To afford opportunities to Scholars to give expression to their views on their respective subjects and to point out the difficulties experienced in the pursuit of their special branches of study.
- (d) To promote social and intellectual intercourse among Oriental Scholars.
- (e) To encourage traditional learning.

The Conference is held every second year and practically sums up the work done by Oriental Scholars in various branches of Oriental Art and Literature. Mutual exchange of thought and personal contact with Scholars are not only stimulating to further research, but have also a tendency to co-ordination of efforts. As such the utility of these Conferences has long been recognized in Europe and America.

The Conference will be divided into a number of sections, the provisional list of which is given below :—

1. Vedic. 2. Classical. 3. Philosophy. 4. Philology. 5. Fine Arts. 6. Arabic, Persian and Zend. 7. History and Archaeology. 8. Urdu. 9. Hindi. 10. Punjabi. 11. Anthropology.

There will be a concert of classical Indian Music, a Musha'ira, and representation of a play in Sanskrit. Excursions to places of historical interest like Taxila and Harappa will also be arranged.

All Orientalists are invited to become members of the Conference by paying a fee of Rupees Five only to the Honorary Treasurer, Mr. A. C. Woolner, M.A., C.I.E., University Hall, Lahore. Those who wish to read papers at the Conference should send their papers in full together with a short summary to the Honorary Local Secretary, Dr. Lakshman Sarup, M.A., D.Phil. (Oxon.), University Hall, Lahore, by the end of April 1928. This is particularly requested, for the University of the Punjab remains closed for the Summer Vacations from June till the end of September. All arrangements for printing the volume of summaries are, therefore, to be made before the University is closed for the Summer Vacations.

His Excellency the Governor of the Punjab is expected to be the Patron and to open the Session of the Conference at Lahore. The Hon'ble Sir Geoffrey de Fitz Montmorency, Finance Member of the Government of the Punjab and Vice-Chancellor of the Punjab University, has kindly consented to be the Chairman of the Reception Committee. Those who wish to join the Reception Committee should fill in the enclosed form and send it to the undersigned.

The Punjab has always been famous for its hospitality. It is expected that a large number of the Punjabis will join the Reception Committee and offer to the visitors from other Provinces as attractive a programme as possible and make their visit a memorable one.

UNIVERSITY HALL, LAHORE, }  
5th March 1928. }

LAKSHMAN SARUP,  
LOCAL SECRETARY,  
*All-India Oriental Conference.*

TO

THE LOCAL SECRETARY,

THE FIFTH ALL-INDIA ORIENTAL CONFERENCE,

*University Hall, Lahore.*

DEAR SIR,

I shall be glad to join the Reception Committee of the Fifth All-India Oriental Conference. I enclose Rs. \_\_\_\_\_ as my subscription.

Name \_\_\_\_\_

Address \_\_\_\_\_

\* The minimum subscription to join the Reception Committee is Rupees Twenty-five only.

## CONTENTS.

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	PAGES
The Eighteenth Annual Meeting of the Mythic Society ..	85— 92
Mahodayapuram (or Makotai)—	
BY K. RAMAVARMA RAJA, ESQ., B.A. ..	93—100
The Malayarayangans of Travancore—	
BY L. A. KRISHNA IYER, ESQ., M.A., M.R.A.S. ..	101—109
Varna-Dharma <i>Vs.</i> Asrama-Dharma—	
BY K. KRISHNAMACHARYA, ESQ., B.A., L.T. ..	110—114
The Hindu Arabic Numerals—	
BY A. A. KRISHNASWAMY AYYANGAR, ESQ., M.A., L.T. ..	115—133
Mughal Land Revenue System—	
BY L. L. SUNDARA RAM, ESQ., M.A., F.R.E.S. ..	134—149
Studies in Bird-Myths, No. XXIV—	
BY PROF. SARAT CHANDRA MITRA, M.A., B.L. ..	150—151
Studies in Plant-Myths, No. II—	
BY PROF. SARAT CHANDRA MITRA, M.A., B.L. ..	152—153
Notes .. .. .	154—155
Reviews .. .. .	156—161



The  
**Quarterly Journal**  
of the  
**Mythic Society**

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OCTOBER, 1928

[No. 2

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THE EIGHTEENTH ANNUAL MEETING OF THE  
MYTHIC SOCIETY.

*Bangalore, 6th July 1928.*

THE HON'BLE MR. L. M. CRUMP, C.I.E., I.C.S.,  
BRITISH RESIDENT IN MYSORE,  
*in the Chair.*

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THE Eighteenth Annual General Meeting of the Mythic Society was held in the Daly Memorial Hall with the Hon'ble Mr. L. M. Crump, C.I.E., I.C.S., British Resident in Mysore, in the Chair, when a large number of members and visitors were present including Dewan Bahadur Mr. T. Rangachariar.

The President of the Society, Rajakaryaprasakta Rao Bahadur Mr. M. Shama Rao, M.A., welcomed the Chairman in a short but felicitous speech. *Inter alia*, he said, that the Mythic Society owed its existence to the late Rev. Father A. M. Tabard and had become a seat of the Goddess of Learning embodying within its shrine scholars of the West as well as of the East. Mr. Crump, though he had been in Bangalore only for a short period, had already won the love and esteem of the people. When the Secretary called on him to request him to preside he received a ready response. Mr. Shama Rao said that the Chairman was good-natured, besides being sincere and pleasing in his conversation, and like the moon shed cool rays all round.

Mr. S. Srikantaiya, General Secretary and Treasurer, then read the Report for the year 1927-28 which ran as follows :—

### THE REPORT.

Your Committee desire to place before you this evening a Report of the Society's activities during the year 1927-28.

**MEMBERSHIP.**—The strength in membership continues to be steady, with 550 ordinary members and 40 life-members. The Committee renew their appeal to members to secure more members and to become life-members whenever they can afford it. Dr. Kalidas Nag of the Greater India Society was elected an Honorary Member during the year.

The Committee regret to have to record the deaths during the year, of Mushir-ul-Mulk Mir Humza Hussein, one of the Vice-Presidents of the Society, Rao Bahadur H. Krishna Sastry, a distinguished scholar and archæologist and epigraphist of world-wide reputation from whom the Society had expected to derive much benefit, Mr. N. Vyasa Ram, an artist of promise who contributed interesting papers to the Society and two long-standing members of the Society in Mr. Aga Abbas Ali Saheb and Mr. V. Ayyasami Iyer, the latter of whom had read valuable papers at our meetings, on architecture. Sir George Forest of the Oxford University and Mr. W. W. Badcock passed away in England during the year under Report. We offer our condolences to the bereaved members of their families.

**FINANCE.**—A statement of accounts has been appended to this Report. The opening balance for 1927-28 was Rs. 618-12-1 and the closing balance on the 30th June 1928, Rs. 664-5-0. The Reserve Funds have not been drawn upon in spite of heavy expenditure. Quarters for the peon and malis were constructed on the premises at a cost of Rs. 1,632-8-0. This amount was met entirely out of the receipts of the year; and the quarters enhance the value of the premises. A sum of Rs. 300 will be added to the Reserve Fund very soon from the closing balance for the year.

**AUDIT.**—The accounts of the Society have been audited to the end of June 1928 and the statement of accounts have been checked and certified correct by the Honorary Auditor, Mr. T. M. S. Subramaniam of the Mysore Bank, who has so kindly undertaken to do the work without any remuneration, and to him our thanks are due.

**MEETINGS.**—There were 12 meetings of the Society at which interesting papers were read and the Committee offer their thanks to the lecturers, among whom may be mentioned Dr. E. Hunt, Dewan Bahadur Mr. T. Rangachariar, Dr. J. W. Graham and Mr. R. S. Vaidyanatha Ayyar.

**JOURNAL.**—The Journal of the Mythic Society continues to maintain the high standard set to it by its promoters and the Committee are grateful to the

contributors who have helped them in their endeavour. Important and valuable papers on matters of great interest are to be found in the pages of the Journal.

**EXCHANGE.**—The exchanges include periodicals, transactions of research institutions, universities, departments of archæology, etc., and of the various administrations in India dealing with the subjects in which the Mythic Society is interested. The number of exchanges is 94. Among the many additional exchanges may be mentioned the publications of the University of Dacca and those of the Greater India Society of Calcutta.

**LIBRARY.**—A large number of books has been added to the Library by purchase and by presentations. We are grateful to the various Governments in India including Burma and the States of Mysore, Hyderabad, Travancore, Kashmir and Baroda, the Oxford University Press, the Universities of Madras, Calcutta, Mysore and Dacca and to the various authors and publishers for kindly sending their publications to us.

**READING ROOM.**—The Free Reading Room attached to the Society is becoming increasingly popular. Over 70 to 80 excellent periodicals in various languages are placed on the table. The number of visitors during the year was 3,362.

**PREMISES.**—The Daly Memorial Hall and the premises are maintained in good condition. The Hall has been in constant demand for the meetings of various associations. The Committee are finding it difficult to provide accommodation for the Reading Room and to locate the Library. It is felt that a separate building for the Reading Room is very necessary.

**GRANTS.**—The grants from the Government of India and the Government of His Highness the Maharaja of Mysore have enabled the Society to make the progress recorded in this Report. We take this opportunity of expressing our gratitude to the British Resident in Mysore and the Government of His Highness the Maharaja for their generous sympathy and encouragement to the Society.

**VISITORS.**—Mahatma M. K. Gandhi went round our Library and gave a discourse on the Panchama Uplift to a large audience assembled in the Daly Memorial Hall. His Highness the Raja of Narasinghar, with his Guardian Mr. J. H. Bannerji, was pleased to visit the Society and appreciate the work of the Institution.

The Silver Jubilee of the reign of our beloved Patron, His Highness Sir Sri Krishnaraja Wadiyar Bahadur, Maharaja of Mysore, was celebrated on the 8th August 1927 by the Mythic Society with feelings of gratitude and rejoicing in a manner suitable to the unique and auspicious occasion; and the following Resolution was adopted with acclamation at the Annual Meeting of the Society held on 8th September 1927:—

"The members of the Mythic Society most respectfully tender their loyal congratulations to their Patron, His Highness Colonel Sir Sri Krishnaraja Wadiyar Bahadur, Maharaja of Mysore, on the celebration of the Silver Jubilee of his reign and pray that he may long be spared to rule over his grateful people.

*Resolved* that a copy of the above Resolution be sent to the Private Secretary to His Highness the Maharaja of Mysore for kind submission."

The Committee congratulate one of our Vice-Presidents, Mr. K. Chandy, on the well-merited distinction of "Rajasabha Bhushana" bestowed upon him by His Highness the Maharaja in recognition of his services to the State.

GENERAL.—The Society was founded in 1909 and during all these years its usefulness is becoming increasingly recognized both by the Government and the educated classes. With a library like ours and the opportunities that it affords, the Committee fervently hope that the interested student of history will be able to give a connected and complete history of the Royal Family of Mysore, of Mysore and of South India.

In proposing the adoption of the Report, the President of the Society suggested the inclusion in the Report of a mention of a paper on "Kannada Passages in the Greek Papyri No. 413" read before the Society by Mr. S. Srikantaiya, as well as an appreciation of the excellent work turned out by the General Secretary; both of which, he said, had been omitted by Mr. Srikantaiya who drafted the Report. Duly seconded by Lt.-Col. P. A. Skipwith, the Report was adopted with these modifications.

Mr. Shama Rao, Chairman of the Committee for several years and President of the Society for the last two years, was unanimously re-elected as President with acclamation. The other Office-bearers were then elected. Then the Hon'ble the Resident delivered the following very interesting

#### ADDRESS.

GENTLEMEN,

I am much obliged to Mr. Shama Rao for his kind words of welcome even though I have never before been compared to a moon. As I feel that I am merely a fleeting phenomenon in the Bangalore firmament I will refrain from comment on the Secretary's report further than to congratulate the Society on its record of the past and to express, in an optimistic spirit, a hope that its future will be even brighter.

Now, a certain Professor Bradley of my college at Oxford, on being asked to define optimism, declared it to be a belief that "This is the best of all possible worlds and everything in it is a necessary evil". The last few years

have forced me, with not unnatural reluctance, into the belief not only that Residents have to be accepted by society at large as necessary evils but further that they have to face many unnecessary ones. I am called on to preside over and, what is much worse, to contribute to the funds of the societies, religious, philanthropic, artistic, athletic, to referee in polo matches, to advise foot-ball teams, to exhort Boy Scouts and Girl Guides and in fact as the Provincial Mayor said "to be, like Cæsar's wife, all thing to all men". But at any rate there is one thing I have never been asked to do before and that is to preside over a "Mythic Society". When I heard the name I wondered what it meant. It suggested an assemblage of phantoms from the realms of non-existence or to quote Mr. Weller's definition of a King's Arms, "a collection of fabulous animals". At any rate, the Society has visibly demonstrated its existence and I have learnt something of its aims and objects. Still I, on my part, am here to-night, as an unnecessary evil for there was no obligation on yours to ask me to address you. If, therefore, I bore you or disturb your susceptibilities for a few minutes, you should, in kindness to me, realize that you have brought your blood on your own heads and that I am not a wilful or perverse criminal. However, as my head clerk once said to me "But Sir, there is a silver lining to every wet blanket", I promise you I shall not keep the wet blanket for long over your heads, and even when it is there, I hope you will secure four annas from the silver lining.

Some three or four years ago, in what may or may not have been a moment of inspiration, I addressed to India series of three sonnets which I commenced with this line, "Land, that has never learnt to stand alone". At the moment my thought was perhaps on the historical aspect of the case. It is not the time or place for me to discuss political facts, probabilities and possibilities and I will say no more on this point than that if, or perhaps, I should go further and say, when India does stand alone, she will owe her political balance to the help of the British Empire in training her to use her feet.

That is, however, a mere *obiter dictum* and I come now to the subject of Indian art and architecture, literature and religion which are those with which this Society is primarily concerned. In this connection, however, my phrase must be qualified and largely qualified. In all these matters India has stood alone in the past. She produced probably the earliest religion, which had a basis in a considered and tenable system of philosophy. Following on that she produced the sublime morality of Buddhism which, though dead in India, has spread the influence of Indian thought through Burma, Tibet, Ceylon and China. She gave birth to the great epics of the *Mahabharata* and the *Ramayana* and to the sublime dramas of Kalidasa. She developed her own system of architecture and though alien invasion has profoundly modified



this, the essential Indian touch has been preserved and the same may be said over the art of painting where, though possibly the impulse to revival after the passing of the earlier Ajanta, Bagh and Ellora came from the Persian artists, imported by the Mogul Emperors, yet subsequent developments were essentially Indian in character and workmanship.

Now to get back to my text, if a person or a country is to stand alone, much more to walk alone, it must have confidence in itself and as regards art anyhow, what I have noticed in conversations with Indians or in books by Indians or on Indian artistic subjects is a lack of confidence. This shows itself in what I may express in G. W. E. Russell's definition of the chief Harrovian characteristic, as "a curious kind of shy bumptiousness" and a consequent resentment of any criticism to effect that Indian art, literature, architecture or religion have been in any way influenced from outside. To my mind not only is this position not tenable but it is absurd. With India's wonderful history, her wonderful traditions, her wonderful record of achievements in all these various lines, in all of which she has displayed her own individual and unique genius, I see no reason why obvious facts should be denied and why India with supreme confidence in herself and her own individuality should not reply "Yes, I admit the external influences but I took them, made them my own and used them for my own purposes." Even in the days whereof there is little record, we know, from the Ajanta and the Bagh frescoes, that people from all over Asia came to the courts of the Indian kings and if they came to learn, it is equally certain that they also taught and that Indians would be and were ready to learn from them. In the capital pillars of Sanchi and Amravati and many other places, the ways and influence of Syrian and Assyrian art is clear. In painting, as already observed, much is due to the inspiration and influence of the early Persian School. In sculpture, similarly, India owes much to the Greek influence especially in the Gandhara School. In architecture, where a strong Arabic and Persian influence came in with the Moguls and Pathans, again the effect of the alien impulse is obvious and in modern painting something is owed to some French schools and also to Japan. Nor can the Bengali school of novelists be held to owe no debt to the West.

Yet the main point I want to make is not that India has been influenced by the various alien forces but that, though she had been influenced in so many directions by outside forces, she has never lost her own individuality. Perhaps, more than any other great poet, Shakespeare was the greatest borrower of other poets' thoughts but he took them into his own soul and re-coined them in the mint of his own genius. Similarly India has taken into herself whatever style or shape of art or architecture, or religion or literature she felt

was of use to her and has absorbed it for her own purposes, and then, when the time of production came, her artistic children have been stamped indelibly with the marks of the personality of the great Mother who brought them into the world. From this point of view at any rate, there is no reason why India should not stand or walk, even run alone. Nor is there any reason for the sensitiveness to criticism on which I have commented. The right reply of the Indian is not a touchy denial of outside influences. It always was and, with the world in effect shrinking daily as communications improve, it becomes daily more absurd to reject or deny the power of external and alien influences. India is big enough to stand on her own legs and admit the extent to which she has been influenced and to deny that such influence has resulted merely in slavish imitation. She can assert, and assert with truth, that in all influences that have been brought to bear on her from outside, religious, literary or artistic, she has been strong enough to absorb and transform them without ever giving up her own character, her own individuality, her own personality.

And, to revert to where I began, the great need for India to-day is the self-confidence of strength. I believe that in politics, as in art, she will develop what the times call for. But to close on a word of warning—strength lies in unity and unity cannot be obtained without tolerance.

Rajasabhabhushana Mr. K. Chandy, in proposing a vote of thanks to the Chairman, offered him hearty thanks of the Mythic Society for having kindly consented to preside in the midst of his multifarious duties. In his usual modest manner, Mr. Chandy referred to his having said at the last General Meeting of the Society over which he presided "With this one unfortunate interlude, we shall again have a galaxy of distinguished names" among the chairmen of the meetings of the Society, and said his hopes were realized. He referred to the scholarship of the Honourable Mr. Crump and said that he was entirely in sympathy with Indian aspirations and was one of those Englishmen who always cherished the well-being of India.

With three cheers to His Majesty the King-Emperor, His Highness the Maharaja of Mysore and the Chairman, the meeting came to a close.

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# THE MYTHIC SOCIETY, BANGALORE.

## Statement showing Receipts and Expenditure during the year 1927-28.

RECEIPTS	AMOUNT	PAYMENTS		AMOUNT
	Rs. A. P.			Rs. A. P.
1. Opening Balance ..	618 12 1	1. Establishment—		912 0 0
2. Subscriptions—		Pay of the Staff ..	..	20 15 4
Resident Members ..	474 0 0	Livery ..	..	55 13 6
Mofussil Members ..	651 0 0	Garden ..	..	0 8 0
Life-Members ..	40 0 0	Water Charges ..	..	133 7 0
3. Grants—		Lighting Charges ..	..	
Government of Mysore ..	2,100 0 0	Journal—	..	
Government of India ..	360 0 0	Printing ..	..	786 0 0
4. Recoveries from servants ..	119 0 0	Postage ..	..	266 13 0
5. Interest and Dividend earned ..	638 12 0	LibRARY—	..	
6. Sale of Journal, etc. ..	109 0 0	Books purchased ..	..	54 7 0
		Subscriptions to Papers ..	..	61 8 0
		Book-binding ..	..	78 8 0
		4. Building—	..	
		Contractor's Bill ..	..	1,592 8 0
		Electric Installation ..	..	40 0 0
		5. Miscellaneous—	..	
		Advance to Peons ..	..	150 0 0
		Bicycle Repairs, etc. ..	..	32 5 0
		Expenses for the Silver Jubilee and visits of distinguished personages ..	..	51 2 0
		Bank's Charges ..	..	2 9 0
		Stationery and Miscellaneous ..	..	147 11 3
		6. Closing Balance ..	..	664 5 0
TOTAL ..	5,050 8 1	TOTAL ..	..	5,050 8 1
		Reserve Fund—Rs. 10,450.	..	

## MAHODAYAPURAM (OR MAKOTAI).

BY K. RAMAVARMA RAJA, ESQ., B.A.

THE first word is the old classical appellation of Cranganore (Kodungallore) occurring in the old local Sanskrit works,<sup>1</sup> and conjuring up a romantic vision of its glorious days in the dim distant past ; and is hence chosen as the first title of this paper which will be devoted to a further study of its early history in continuation of a previous paper of mine on "The Two Ancient and Extinct Udaya Cities and their Suburbs" published in the *Ernakulam College Magazine* for July 1924 in which not only this great Udaya city but also another one called after Udaya-Udayamperur<sup>2</sup> or Diamper—with their suburbs have been dealt with at some great length ; the first, as the mother city and the rest, as her offshoots or transplantings. But this review or re-survey will be limited to the ground of the old mother city noting and dotting all the important points and sites marked in the previous surveys, marking and disclosing the new ones, and also discussing and explaining the fresh clues and evidences I have come across in my recent investigations. Let me therefore first briefly recapitulate the conclusions already arrived at by the modern researches.

Our modern Cranganore (or old Mahodayapuram) was the chief seaport on the Malabar coast whereat called, even during the pre-Christian centuries, foreign ships both from the west and from the east—that is, from Babylon, Egypt and other western countries of ancient Mediterranean civilizations as well as from China and her adjacent lands and islands of eastern culture—for export and import trade out of which arose mutual intercourse among them. It has been conclusively identified as the *Muziris* of the ancient Greeks mentioned in the *Periplus*, *Muchiri* of the early Tamil classics and the *Muyirikotta* of the Jewish copper-plates, where the articles to and from the Roman warehouses in South India<sup>3</sup> were landed and shipped, and where the Romans stationed two cohorts of their imperial army, and built and dedicated a temple to Augustus<sup>4</sup> to safeguard their colonial and commercial interests. Judaism and Christianity are supposed to have entered Malabar through this sea gate. It may aptly be called the Alexandria of the Malabar coast, if not of the whole of South

1. The 'Two Sandesar,' 'Suka' and 'Kokila', Pt. I, verses Nos. 65 and 88 respectively.

2. This name should be rendered as the city called after Udaya as "Trissiva-perur" (=The sacred city named after God Siva=Trichur) and not as the great city of Udaya as was done by me before by oversight.

3. H. G. Wells' *Outline History of the World*, p. 249.

4. V. A. Smith's *Early History of India*, p. 444.

India—a minor cosmopolitan centre or outpost of ancient civilizations—where the various communities representing their diverse religions, cultural and business interests from all quarters met, settled and lived in complete agreement and harmony following their respective avocations without mutual jealousy, hatred and strife. It was, in short, what is called an open port or door allowing free and fair-play to all.

Again, Cranganore was a great city, once the capital of the ancient Chera kingdom known as Vanji or Vanchi now identified as Tiru Vanchakulam (=Tiru-Vanji-Kulam) which together with Trikarūr (=Tiru Karūr) now “a deserted village, high up in the Periyar, about twenty-eight miles E.-N.-E. of Cochin,” or with modern Karu-padanna (=Karur-pattanam) four or five miles north of Tiru Vanchakulam and situated on the opposite laterite high bank of the river, might have constituted Vanji-Karur described in the early Tamil works as the capital of the old Chera or Kerala kingdom. Some Tamil scholars are inclined to locate it in the Coimbatore or in the present Trichinopoly District. But V. A. Smith<sup>1</sup> rejects this latter view as erroneous, and locates both Vanji and Karur on the West Coast which well accords with the cherished Malabar tradition. The controversy has not ended yet.

The current local (vernacular) name of Cranganore is Kōdungallore which has been explained by different writers in various ways to suit the pet theories they have propounded. Its correct spelling is given as Kodum-Kolloor (or better as Kodum-Kollur) (=Kodum-Kol-ūr), and it is perhaps truly so. It then is said to mean ‘a city of great misfortune or cruel crime’ (in allusion, probably, to the cruel deed of unjust execution of innocent Kovalan, the beloved husband of Kannaky) where a great temple dedicated to goddess Bhadrakali was built in honour of the brave woman (Kannaky) who suffered self-imposed martyrdom and self-inflicted injuries leading eventually to death in her violent rage roused by the extreme capital punishment of her innocent husband (Kovalan) by the hasty and unjust order of the Pandyan king at Madura.<sup>2</sup> It has also been explained by me as a city of great slaughter (like the Kollam towns of North and South Malabar—Quilon and Quilandy) in allusion to the violent persecution of the heretics (chiefly

1. *Early History of India*, p. 457. My paper in the ‘Udaya Cities’ referred to in the opening paragraph may also be consulted for further information on this question. ‘Vanji’ or ‘Karoor’, according to S. Krishnaswamy Aiyangar, was known at different times and circumstances, as Kodungalur, Maha-Udiyar Pattanam, Vanjikulam, etc. (*Malabar Quarterly Review*, June 1904, p. 161). *Vide* also K. G. Sessa Iyer’s paper in the *Quarterly Journal of Mythic Society*, January 1926.

2. Ponnambalam Pillai on “The Origin of the Cranganore Temple”—*Malabar Quarterly Review*, September 1903.

the Buddhists) in the closing period of the Perumal's reign (ninth century A.D.) or to the revival of animal or cock sacrifice in the great Kali temple<sup>1</sup> here. One more explanation may be suggested. If the roots '(Kol-)' in *Kolhapur* on the Bombay coast, *Kollam* (Quilandy) in North Malabar, *Kollam* (Quilon) in South Malabar, and *Colombo* (Kolamba) in Ceylon are relics left in these place-names by the earliest sea-faring folk—the Kols—who inhabited these coastal towns; as Prof. S. V. Venkateswara suggests in his paper on "The Sea Power in Early South Indian History",<sup>2</sup> "Kol" must have the same significance in the local name *Kodum-Kollur* which, as has already been shown, was the chief seaport of ancient Kerala. The name (Kodungallore) is rendered in Sanskrit as *Kotilinga-pura*, a city of a crore or a score of phallic stones which are to be looked for in the several Saiva temples and elsewhere. In *Kerala-māhātmya*,<sup>3</sup> a Sanskrit work of comparatively modern date but alleged to be of Puranic origin and importance, the place is called '*Kodara-pura*' near Vanjyapura (=Tiruvanchakulam) and the celebrated Kali temple here with its annual cock sacrifices and other ceremonies are described in detail:

Let me now take up the appellation '*Mahodayapuram*' for explanation and comment. The first question to be considered is whether the correct form was '*Mako-Thēvar-pattanam*' (= *Mahodevarpattanam*) of which '*Mahodaya-puram*' might be an incorrect Sanskritized equivalent as suggested by some scholars who base their arguments on the existence of a great or important temple of Mahadeva or Siva at Tiruvanchakulam which must be the origin of the name; and on occurrence or adoption of this form (*Mako-Thēvar-pattanam*) in the old title deeds and documents executed by or in favour of the local Christian residents or relating to the transactions to which any of them was a party. But in this supposition the name ought to have been spelt as *Makathevar-pattanam* with *a* after *k* instead of *o*. Further, there were other *Udaya* cities and their suburbs in ancient Kerala, e.g., *Udayamperur*, *Udayanapuram*, *Udayathum*, *Vāthukal*, *Udayathungiswara Sabha*, *Udayamangalam*—all of which seem to have been the offshoots or transplantations of the mother city of *Udaya* or *Mahodaya-puram* which again must have been called after the original *Mahodaya* city or *Kanauj*, or after the king *Udaya* (451 B.C.) or other *Udaya* kings. For, *Kanauj* of *Harsha* (seventh century), *Bhoja* and *Mahendrapala* (ninth and tenth centuries) as well as *Ujjain* were the model cities and celebrated

1. *Comparative Studies* (Continued), Pt. II, p. 34.

2. *Quarterly Journal of the Mythic Society*, April 1926, page 261. This writer may perhaps regard and treat *Kollengode* (= *Kollam-Kode*) in Malabar also as a coast town like *Kolhapur* on the Bombay coast (?).

3. Ch. 41.

seats of learning in ancient India to which all other important Indian centres owed much of their valuable acquisitions in literature, science and art. Other origins were also suggested and discussed in my previous paper on 'The Udaya Cities' (*Ernakulam College Magazine*, July 1924) in which the interested reader will find the various alternative derivations suggested and discussed in detail,—including among others the one connecting it with the Dravidian word Udiyar (which means 'owner' or 'lord') as S. Krishnaswamy Aiyangar seems to have done.<sup>1</sup>

Mahodayapuram was therefore a very famous city in ancient Kerala. It can be identified with modern Cranganore by references to it in the "*Two Sandesas*"—imaginary messages sent by yearning lovers through the bird messengers, the parrot ('*Suka*') and the cuckoo ('*Kokila*') to their sweet-hearts separated. The first of these love-messages which is *supposed to be the earlier of the two* describes the journey from Rameswaram to Tri-Kanna-Mathilakam which is five or six miles to the north of Cranganore in the Chetiva tract of the Ponnani Taluk (British Malabar), and the second from Kanchipuram on the East Coast to Chennamangalam in Cochin State, four or five miles S.-E. of Cranganore. Both the bird messengers were instructed to fly over the Western Ghats, to continue their journeys along the West Coast—the one from the south and the other from the north—and to touch and to make their halts at Cranganore which is referred to as Mahodayapuram, the nearest station to their destinations on either side of it—north and south. The contexts are regarded as pretty clear on this point. If we suppose them to be contemporary messengers coming or starting from the opposite ends of the Kerala country they may possibly be timed to meet at this important centre of Cranganore—and here only—when their journeys are about to terminate; that is, Cranganore or Mahodayapuram is the only common important station described in both the poems which together describe all the old important places on the West Coast in ancient Malabar where we may safely conclude. Cranganore had attained such a hoary traditional greatness as no other city or place could claim or share with it.

I have so far travelled along the trodden path opened by the previous investigations and propose to proceed a little further with tempting guides—allusions and references—for further exploration of the field. The '*Two Sandesas*' ('*Suka*' and '*Kokila*') are not true historical documents, but merely recite or repeat local traditions of the places to be visited by the bird messengers on their prescribed ways. Yet '*Suka*' has a very suggestive verse (Part I, No. 68) the full or possible significance of which seems to have

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1. *Vide* footnote to paragraph 3 above.



escaped the notices of both the translator and the editor.<sup>1</sup> The verse reads thus:—

"Uttirṇas-tām-udadhidayitām-uttarēna kramēthā—Rajat-patti-dwipahaya-rathānikinīm rājadhānīm Rājnām-ajñāhiyamitanrinam-ananaicbhūridhāmnam 'Rājā-Rājā'-ity-avani-valayē gīyātē yannikētah||"

"Having, by air-route, crossed the river over to its northern bank, you will reach the capital or court, well-guarded with the forces of infantry, cavalry, elephants and chariots in splendid array, of the great king who is, with one voice, acclaimed as Rājā-Rājā by the leading rulers of the various peoples." [This is the lover's guiding direction addressed to his bird messenger—'Suka' or parrot.] Here the duplicated word Rājā or the appellation Rājā-Rājā recalls to my mind the name and exploits of Rājā Rājā I, or otherwise known as Rājarāja the Great, of the Chola royal dynasty who, during the closing decade of the tenth century and the opening years of the eleventh, was successfully engaged in the conquest of the neighbouring kingdoms all around,—Vengi, Coorg, Pandya, Chera, Kalinga and Ceylon—and extension of his dominions; and accomplished complete destruction of the Chera fleet which was till then dominating the South Indian or Arabian Sea, and occupied the chief cities on the Malabar coast of which Quilon (Kollam) was the only one mentioned by V. A. Smith.<sup>2</sup> But from Prof. S. V. Venkateswara's paper<sup>3</sup> on 'The Sea Power in the Early South Indian History' it would appear that not only Quilon but all the seaport towns of Malabar, Kollam, Kolladesam and Kodungallore (Quilon, Quilandy and Cranganore) had fallen to his more powerful and conquering army and navy: and his son and the Chola crown prince, Rajendra, surnamed 'Gangai Konda' was the Viceroy of Pandya and overlord of the Kerala country which probably continued to be governed by the Chola power till its fall in the thirteenth century. Although himself a Saiva, Rājarāja was liberal-minded enough to patronize or endow even Buddhist temples, one of which at the port of Negapatam survived in a ruinous condition till 1867 when the remains of it were dismantled and utilized for construction of Christian buildings.<sup>4</sup>

Here is then an important and interesting historical allusion lurking between the lines of the verse quoted above which could be brought to light and explained by the modern epigraphical and archæological researches. Herein the poet Lakshmi-dāsa seems to make a clear and unmistakable reference to the glorious reign of Rājā Rājā I, the great Chola king, evidently

1. The 'Two Sandeśas' with Malayalam translation. Edited with explanatory notes and comments by Mr. T. K. Krishna Menon.

2. *Early History of India*, p. 465.

3. *Quarterly Journal of the Mythic Society*, April 1926, p. 266.

4. V. A. Smith's *Early History of India*, p. 466.



not as a contemporary event but as one handed down by tradition to his age, which must therefore be assigned to the latter and later of the two alternative dates suggested, viz., fifteenth century A.D. (666 M.E.) and consequently posterior by more than half a century, to '*Kokila*' which is placed somewhere about 602 M.E.; and thereby he puts into the mouth of the fictitious author, or sender of the love message who is supposed to have lived in the early centuries of the Christian era—first and second centuries—the descriptive account of an historical event of a later age—tenth and eleventh centuries. This is surely a glaring instance of anachronism, or to put it mildly or euphemistically, of a poetical privilege which is abused—not infrequently by our Indian poets. The dates of the '*Two Sandesas*' have now come closer, and are not so far apart as they are generally supposed to be, a view which is supported by other considerations as well. '*Suka*' comes from the south end and '*Kokila*' from the north end of Kerala, and pass through Cranganore to their respective destinations to a little north and south of it; thus together covering the long Kerala coastal strip, and so forming complementary or rival compositions, evincing and even serving party-interests. All the true traditions have died out unrecorded, and myths and legends have taken their places; and utter confusion has resulted and now prevails. Hence external evidences have to be sought and brought in to restore order, if it, at all, can be restored, of which one may justly feel very sceptical.

There is one more name which is also noteworthy, and hence adopted as an alternative caption of this paper. It is '*Makotai*'—a curtailed and Dravidianised form of Mahodayapuram. "In the *Periya-Puranam*," writes the late Mr. K. P. Padmanabha Menon,<sup>2</sup> "Vanji is mentioned as the capital of the Chera King and it is indeed significant that it was also known as '*Makotai*' (or Kodungallore) which in the Syrian copper-plates is called *Makotai-pattanam*." It also seems to occur in one of our old Puranas—*Dévā Bhagavata*—(Skandha vii, Chs. 30 and 38)—as a name of an important centre of the goddess worship. The text here is "*Makoti Mukuteswari*". Long lists of such sacred places of worship are given there which include also several well-known South Indian ones, such as Kanche, Ekamrapeetha, Gokarnam, Chidambaram, Vedaranyam, Sri Saikam, etc.; while they also mention some other such centres in the Deccan or South India itself which cannot be so easily identified by me at any rate. E.g., the shrines of Chandrala (in Kärnataka), Lakshmi (in Kōlāpuram=Kolhapur) and Mātā (on the Sahya mountain range); Chhagalanda (of the goddess Prachanda) on the South

1. Mr. T. K. Krishna Menon's Editorial Introductions to the '*Two Sandesas*', with translations in Malayalam, (page 1 of each separate introduction or preface). M.E.=Malabar Era (Kollam Era) dating from 825 A.D.

2. *Malabar Quarterly Review*, March 1903, p. 14.

Indian sea coast; Mahalasa's shrine well-known in the Deccan as "*Mallāri-sthanam*";<sup>1</sup> and more perhaps. Although the two lists given in the two different contexts do not seem to completely tally with each other, yet, both contain the line quoted above relating to the '*Makota*' shrine. And as the Kali temple of Cranganore is so well-known that it is quite possible that the '*Makuteswari*' of *Makota* might be no other than the goddess Kali of Mikōtai (Kodungallore). In this case also the old traditions might have faded, or the old authors might not have been very accurate in their accounts, depending perhaps upon other works, traditions and even hearsay, and paying more attention to the illiterative rhythm. Let us, however, treat this point as an open question until a satisfactory solution is arrived at.

If a search is now made for the relics or wrecks of its glorious past in Cranganore proper by which is meant what may geographically be called Cranganore, *i.e.*, excluding the village of Pulloot on the opposite eastern side of the back-water river which is included for administrative purposes in Cranganore Taluk covering an area of  $18\frac{3}{4}$  sq. miles, but including at the same time Tiruvanchakulam area which is outside this administrative Taluks—one may find many old temples here. Some of them are great and others small. There are not less than half a dozen independent temples of Siva, one of which is the celebrated one at Tiruvanchakulam near Cheraman Palace site where the patron deity of the Perumal rulers of ancient Kerala is worshipped along with several other subordinate deities and devotees. Besides the important Kali goddess temple above referred to, there were two minor ones more. The god Vishnu has three temples dedicated to him, Ganesha, one; and Ayyappan or Ayyanar, one. There are altogether about fifteen separate and independent temples some of which are private, while others and more important ones are under the Government management, most of them have endowed properties yielding an income sufficient for conducting the necessary divine ceremonies and services on low or high scale. Such a large number of temples within so small an area would certainly indicate its past greatness and glory. Lithic inscriptions can be found here and there which, when patiently studied, may yield useful clues and valuable results. One of these on a large lithic slab, four or five feet long and two or three feet wide, recently unearthed near an old temple not far away from the Tiruvanchakulam premises, consists of two parts:—the upper lines, apparently written in North Indian characters, number about eight or so; and the lower lines three or four in number written in what is known as Vattezhuthu seem to be later and more recent. It seems to be a valuable and interesting document, and has lately been removed by the State Archæological Department to the Museum at

1. Consult the commentary which gives all these details.

Trichur where it is preserved now and the experts and scholars interested may inspect and study it and publish their conclusions for general information.

During the period commencing from the Portuguese settlement down to the fall of Tippu, though Cochin was the chief seaport and seat of power, Cranganore was still a strategical position. Here there was a military fort overlooking the Ayakotta river at its mouth, originally built by the Portuguese, subsequently captured and held by the Dutch during their regime, and latterly acquired by the Travancore State for defensive operations against the invading army of Tippu Sultan of Mysore. It has since been demolished and its remains preserved as an ancient monument may now be seen.

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## THE MALAYARAYANS OF TRAVANCORE.

BY L. A. KRISHNA IYER, ESQ., M.A., M.R.A.S.

(Continued from Vol. XVIII, No. 4.)

### CHAPTER II.

#### Geographic Environment.

As already mentioned in the first chapter, Travancore belongs to the great Indo-Malay or oriental sub-region, which includes the whole of India, Ceylon, Assam, Burma and Borneo. It falls within the Cisgangeitic region (Himalayas to Cape Comorin) and has affinities in its hill-fauna with that of the Himalayas. It has also affinities with the Malayan sub-region, as shown by the occurrence of such genera, as *Loris*, *Tragul*, and South Indian hedge-hog among mammals, *Draco* among reptiles, and *Ixalus* among amphibians. Again, affinity is observed in the case of flora. Mr. Bourdillon, late Conservator of Forests, observes: "It is reasonable to infer that one continuous forest of uniform character stretched from the west coast of India to Assam and Burma, and that plants found in opposite extremes of India are the descendants of a common ancestor. The forests that still remain are the relic and development of the great forest that covered the continent, and in the interest of science, preservation of these remains from complete destruction has not come a day too soon."<sup>1</sup> The vegetation is thus of exceptional importance, because they are the relic and development of flora which was at one time uniform over a large part of India and because of their extraordinary variety of species due to differences of elevation, aspect and rainfall. Bamboo forms one of the striking features of oriental regions, and, according to Gamble, occurs in the warmer parts of India, Burma, Malaya States and Ceylon. There are a few in Africa and Australia.<sup>2</sup> Thus the ascertained distribution of living plants and animals offers concurrent testimony to the former close connection of Africa and India including the tropical islands of the Indian Ocean.

*General Physical Aspect.*—The general aspect of the country about the Malayarayans is extremely mountainous. The form of the hills is gradually rather round with a great but gradual declivity. The more remarkable ridges in the mountainous parts are "steep in their declivity, narrow in their summits, and furrowed by chasms or rivers, whose contracted breadth scarcely allows space for the winding rivelet that struggles to the depth." Sabarimala, the principal temple of mountainous deities, lies north-east of Nellakal, and is built on an elevated mound.

1. *Malabar Quarterly Review*, 1900.

2. T. F. Bourdillon: *The Forest Trees of Travancore*.

*Rivers.*—Few countries of small extent are washed by so many fine rivers as Travancore. In the tract of the Malayarayans, there are three rivers, which gush from the acclivities of the ghats and enliven the country through which they flow.

The Pambai is one of the finest rivers of Travancore, and has its source in a woody ridge of broken hills, thirteen miles south-east of Sabarimala pagoda. It measures about ninety miles, fifty-two of which are navigable. The river runs with an impetuous current over a rocky bed. Receding from the hills, these features become softened and its waters pursue a gentler course.

The Manimala river is one of its chief tributaries, and proportionately useful and beautiful. Issuing from the Kodamuruti hills, its waters occupy a rather deeply broad and sandy bed, confined by deep banks which gradually diminish westward.

The Meenachil is another important river. From its origin, it runs a devious course of thirty-five miles, twenty-eight of which are navigable for small boats during the greater part of the year.

The Malayarans make their habitable home along the water-shed areas of these rivers and their tributaries.

*Climate.*—The climate presents a diversity from the variety of aspect and range of territory. A warm humidity is one of the special features of the climate. The most noticeable variations are found in the mountains. The climate of the plains is most constant. From January to May, there is intense heat and a uniform high temperature is maintained.

The low hills, where the Malayarayans live, are very hot in summer, and even they cannot stand it. The fever common to the hills may be due to sudden change of temperature, and excessive dews give activity to it. The people fall a prey to malaria. The climate after summer is salubrious, the only inconvenience being torrents of rain that deluge them. Rainfall is heaviest in the Kottayam district, being 115.1 inches annually. The three months after cessation of the monsoons are the most agreeable and salubrious, the air being cool and refreshing and the face of the country clothed with a luxuriant verdure. On the whole, the climate of Travancore at lower elevations is depressing, enervating, and retarding recovery of strength.

*Forests.*—The forests of Travancore are remarkable for the beauty, diversity and composition of the growing stock, and are of great economic value. Teak, blackwood and sandalwood are the most valuable. Bamboo, the most gigantic of the grasses, is the most useful and economic of all vegetable products, and is used for house-building by the Malayarayans. It covers the sides and tops of mountains throughout India and forms one of the most striking features of oriental scenery.

*Fauna*.—There are no mammals peculiar to Travancore, but *Macacus Piliatus*, the Ceylonese Palm Civet (*Paradoxurus aureo*) and the Ceylonese brown mongoose (*Hesperetes fulvescens*) are found in Travancore. *Macacus Silenus* and *Semnopithecus Johnni* are found at elevations over 2000 ft. Of the Lemuroids, *Loris* is found in low land forests. Among the ungulates, we find the bison, the finest representative of existing bovines, elephants, wild goat miscalled Ibex, sambhar, spotted deer, barking deer and mouse-deer. The Indian wild-boar is the last of the ungulates and Pangolin, the only representative of Edentata.<sup>1</sup>

#### Influence of Environment.

The influence of environment may be traced in every aspect of the life of the Malayarayan. What with sudden changes of temperature, excessive dew, scarcity of water supply in summer, and mosquitoes, his life on the hills is not a cheery one. He falls a prey to malaria which devitalizes him. He lives mainly on rice and tapioca, and he cannot relish his meal without the latter as it gives him great staying power to do manual labour. His native jungle provides him with edible roots and fruits. Though fond of animal food, he resorts to it only on rare occasions as meat diet is not a climatic necessity. His hut has walls of plaited bamboo and thatched roofing supported on jungle-wood posts, beam, and rafters of bamboo. It has no windows to keep out the hot winds of tropical summer.

His dress is of the scantiest as abundance of clothing is not an actual necessity. Clothing is generally white. His low culture is responsible for the low type of his dwellings, poverty of furniture and dress.

He leads a life of isolation, and is in touch with the neighbouring market where he sells the produce of his labour in exchange for salt, chillies, tobacco, and the like. Being in the midst of rugged hills, his life nurtures in him sentiments of fear and awe of the supernatural powers.

Social environment has an equally high place in the life of the Malayarayan. Agriculture is his main occupation and he indents on the Ulladans for his field work occasionally. The Kaniyan is another indispensable factor in domestic life. He casts horoscopes, fixes auspicious days for marriage, and attends ceremonies connected with pregnancy, naming, marriage and others.

He is also employed for averting the evil eye and for a host of other purposes. The Velan forms another useful element. He is employed for singing songs on the occasion of a girl attaining puberty. His wife is necessary for washing clothes. He depends on blacksmiths in the vicinity for his bill-hooks and for repairing other implements.

1. V. Nagamiah: *The Travancore State Manual*.

His economic condition is not cheery as he is always running into debts, and tries to discharge them by pledging his crops.

*Habitations.*—The Malayarayan village is generally on fairly high ground by the side of a stream. The arrangement of the huts is irregular. They are built here and there facing the east. Each hut has an open space around it, and irregular winding paths connected with others. They get their water supply from streams. When they get dry in summer, they make water-holes. It must be said to the credit to the Malayarayan that sanitation is excellent in his villages.

Each hut is 20'×10' and has gable roof. The flooring is slightly elevated from the ground. It is built of junglewood posts, bamboos and reeds and is thatched with grass. The sides of the hut are walled up by plaited bamboos. Each has three apartments portioned by walls of plaited bamboos. The front one is designed for receiving visitors and is 10'×6'. The entrance in front is 4'×3'. The mid-room is for eating and resting at night. The hind one is for cooking and has a small exit behind. A front verandah forms a notable addition. The huts have no windows for it is desirable to keep off hot winds in summer.

About a hundred yards away from the hut is a small shed designed for women in menstruation. Men do not approach it, nor do they touch it, as it pollutes the man who does it. They have a cattle shed and one for poultry away from the hut. Unlike other hill tribes there is nothing uncanny about a Malayarayan and his environment.

Living as he is in the jungle, he has his own tree house "Ānamādom". Being afraid of the attacks of wild elephants at night, he takes shelter in it with his family. It is built on the top of a tree and is reached by a bamboo ladder. Here he garners his paddy or tapioca and here he rests at night driving elephants by shouting "Aiyappo".

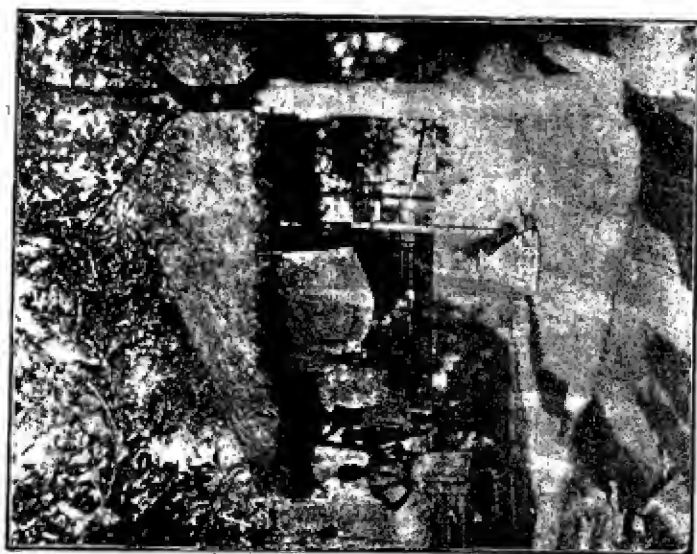
Each village has its temple which is a thatched shed and here are a few stones held upright with a lamp. They are symbolic of several eminences. Asamban Mala-Arayans worship Thalaparamala, Pothennmala, Azhamala, Puthiyamala and Savamparamala. Azhutha men worship Udumbaramala and Suchiparamala. They are worshippers of god Aiyappan, who is a sylvan deity claiming a very large number of votaries annually at Sabarimala.

*Fire by Friction.*—A Malayarayan used to carry with him, in his betel bag, a little box made of bamboo stem with a node as its bottom. It is stuffed with the floss of *Bombax Malabaricum* and also holds a piece of quartz and flat piece of iron. Fire is obtained by igniting the floss with a spark produced from the quartz by striking the iron piece on it. Chak-muk is now becoming an object of rarity and safety matches take its place.





A Tree-House



A Malayayan Hut





A Female Group



A Votary of Ayyappam (Brahmin)



A Married Couple

## CHAPTER III.

*Adolescence.*—No ceremony is attached to the age at which a boy attains manhood. When a girl attains puberty, she is lodged in a separate shed for a day. On the morrow, she is taken for a bath by her aunt and her daughter. On their return she is lodged in a room in the main building, and all are treated to a feast. Pollution lasts for seven days and two or three Velans are requisitioned for singing songs (*Therandapattu*) suited to the occasion for three days.

The girl is seated on a plank and in front are placed two plantain leaves with a lighted lamp in between. On one leaf is kept a measure of paddy, while on the other is a quarter measure of rice. Besides, a cocoanut and a bunch of plantains are placed in front of the lamp as offerings to Ganapathy, while a cloth and a cocoanut over it are also kept on one of the leaves. Songs are sung for over an hour for three days and the Velans are presented with all the offerings and the cloth.

On the eighth day she is led to a stream for bathing followed by her paternal aunt and her daughter to the accompaniment of tom-tom and Kuruva cry (a shrill sound produced by the vibration of the sound between lips and teeth). The services of the Velan women (*Ettali*) are sought to wash her clothing. The girl takes an oil bath. When she completes bathing, she dives into the water thrice. After the third dip, she glances at the tali-tier. She is then attired in her best, the old cloth, oil and seven chuckrams being offered to the Velan woman for her services. She is then led in procession to her home to the tune of tom-tom and Kuruva cry with the tali-tier in front and her aunt and daughter in behind.

On reaching home they are seated in the same room and treated to a feast. The gathering then disperses after feasting.

At puberty, it is widespread custom that neither sex may see each other. The avoidance is of a religious and taboo character, and a man and woman are afraid of dangerous results from each other.

#### Exogamy among the Mala-Arayans of Travancore.

The social organization of the Mala-Arayans is built on the foundation of exogamy, which is the chief characteristic of primitive marriage system. The tribe is divided into six clans, called *illoms*, an interesting nomenclature which is used to denote the exogamous groups of North Malabar Tiyans and the Izhuvans of Madura and Tinnevely.<sup>1</sup> They are:—

1. *Vala illom*:—Comprises those who presented bangles to the Ambalapuzha chief, who called them *Vala illakars*.

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1. *Tamil Studies*, by Srinivasa Iyengar.

2. *Enna illom* :—Comprises those who presented oil to the chief, who hence called them *Enna illakars*.
3. *Mundillom* :—Comprises those who presented mundu or cloth to the chief, who hence called them *Mundillakars*.
4. *Puthani illom* :—Refers to those who presented flowers to the chief, who hence called them *Puthani Pillakars*.

The remaining illoms are Korangani illom and Panthirayira illom. The first two illakars claim superiority over the others. Next come the Vala and Mundu illakars who are Enangans of the first two clans. The last two are the lowest in social status.

As already stated, the clans are exogamous. Members of *Vala illom* cannot marry within the same clan. They are at liberty to marry one among the Enna and Mundu illakars. It is maintained that members of the same illom stand in relation of brother and sister, and it would be sacrilegious, nay, incestuous, to marry within the same clan. Formerly members of *Vala illom* married women of Puthani illom, but did not give their women in marriage to them. The latter could not serve food to the former owing to their low position. These differences are now vanishing.

Sir James Frazer suggests that exogamy may be due to a belief that the intercourse of near kin is injurious both to the progeny and to the whole community. It is also said to render women sterile,<sup>1</sup> but, according to Westermarck, exogamous rules are regarded as social survivals from very remote times and the underlying idea is to keep the home free from incestuous intercourse.<sup>2</sup>

Although the members of a clan do not claim descent from an animal or plant, they regard themselves as the descendants of a common ancestor, and, as such, blood-relations between whom marriage or sexual intercourse is forbidden. Although a Mala-Aryan is forbidden to marry in his own clan, he is at liberty to marry into his mother's clan. One of the traces of the old solidarity of the clan exists in the recognition by every member of the clan of his duty to welcome as a brother any other member of the clan, however unrelated, who may happen to require his hospitality. There is no division of labour among the different clans.

#### Marriage Ceremonies.

Marriage ceremonies in all stages of culture may be termed religious with as much propriety as any ceremony whatever, but this religious character concerns the human relation of the human pair.<sup>3</sup>

1. Frazer : *Totemism and Exogamy*, Vol. IV.

2. Westermarck : *The History of Human Marriage*, Vol. II.

3. A. E. Crawly : *The Mystic Rose*, p. 31.

Marriage is always preceded by the Talikettu Kalyanam, which is a common feature of marriage among the Nairs and other low caste Hindus. This ceremony is celebrated for a girl or group of girls, when they are at the age of three, five, seven, nine, or eleven. The Enangan may be any married man or the nephew of the girl's parents. A Kaniyan (village astrologer) is consulted for agreement of horoscopes, auspicious day and hour for the ceremony. On the appointed day, the Enangan goes to the girl's house, when the Kaniyan is also present. The Enangan holds the *tali* (marriage badge) between his hands, waves it towards north, south, east and west, takes it near the neck of the girl and solicits the permission of the Kaniyan for tying the *tali* round the neck of the girl. On his nod of approval, the *tali* is tied. It is now made of gold.

The assembled guests are then treated to a feast both in the morning and in the evening. A pollution (Kettuvalama) is observed for three days.

On the fourth day, the Enangan and the girls undergo a bath (Nālānguli) in the morning. This is followed by a feast after which all depart.

The tali-tying ceremony is intended to avoid reproach from friends and neighbours. In some essential features it resembles the ceremony among the high caste Hindus.

1. Performance of the ceremony for all the girls in the family down to one in the cradle.

2. Fixing of an auspicious day and hour of the ceremony by the astrologer.

3. Information to friends and relations.

4. Tying of *tali* by Enangan.

5. Observance of Kettuvalama and bath on the fourth day.

6. Formal separation.

By some the tali-tying ceremony is considered to be a mock-marriage among the high caste Hindus. The Malabar Commission Report says that while a small minority still maintain that the tali-kettu is real marriage, intended to confirm on the bridegroom a right to cohabit with the bride, an immense majority describe it as fictitious marriage. Among the Malayarayans, it is an essential tribal observance preliminary to the formation of sexual relations.

Marriage takes place after puberty when the girl is about sixteen years of age and the boy is older by at least two years. The liberty of choice in matrimonial alliance is not allowed to the contracting parties. Parents along with the maternal uncle make arrangements for the marriage. When a girl attains the age of marriage, the boy's father and any other Enangan approach the girl's father with proposals for marriage. He agreeing, the

horoscopes of the boy and girl are consulted and the date of marriage is fixed. The best form of marriage is considered to be cross cousin marriage by which a man marries his mother's brother's daughter, his sister's daughter, or father's sister's daughter.

On the appointed day, the bridegroom-elect and party arrive at the home of the bride. Wedding takes place in the evening or at night, a custom natural enough for its convenience and its obviation of dangers such as that of the evil-eye. When the auspicious moment approaches the *pānsuṇari* brought by the Enangans is distributed to the guests and the girl is brought to the marriage pandal. In front of the couple are placed three plates each containing one and a quarter edangalies of rice. On one of them are kept three bundles of betel leaves, on the second the bride's apparel, while on the third are the bridegroom's costume. The bridegroom's father purchases the marriage presents to the couple. The bride's loin cloth is eight to nine cubits long, while another cloth of a fine texture is presented for covering the breasts. Jackets now supplement the above wedding apparel for the bride. These generally cost rupees five. The bridegroom's apparel consists of loin cloth four cubits long, while another of a fine texture is thrown on the shoulders.

Ammayiamma (aunt) and Nāthune (her daughter) form the bride's maids who escort the bride-elect to the marriage booth. One of the Enangans at the auspicious moment asks whether anyone has any objection to the marriage. When approval is nodded, the bridegroom hands over the wedding costume to his affianced, while his brother-in-law hands over his apparel to him. The bride is then taken to a room by her best friends where she is attired in her wedding clothes. The bridegroom also wears the wedding costume. The couple are then seated on a mat facing east. The bride's brother then gives a betel leaf which she is asked to tear into two halves. She then changes hand and is then asked to give the chew to her lover. She chews one half. They are then asked to spit in the same spittoon. All the guests chew. This consummates marriage. The chewing of betel by the bridegroom and bride constitutes the essence of marriage among the Minihasas of Celebes. Among them, the young couple sit side by side and betel being placed in the hand of each, they exchange it and chew it. They are thus legally married. The Balans at marriage chew betel together.<sup>1</sup>

The married couple and the bride's best friends are then treated to a dinner. The former first ate off from the same leaf, but now they dine separately. All of them sleep in the same room that night. There is feasting the next morning also. Eating together is a common marriage custom. In Fiji,

1. A. E. Crawly : *The Mystic Rose*, p. 384.

the marriage ceremony was the eating by the pair from the same dish.<sup>1</sup> In Germany, the pair eat from the same plate.<sup>2</sup> The underlying idea seems to be that eating food together produces identity of substance, of flesh, and thereby introduces the mutual responsibility resulting from eating what is part of the other and giving the other part of oneself to eat. Each has the other in pledge and each is in pawn to the other. The closest union is produced by the closest of responsibilities.

After feasting, the bride is then handed over to the Kaikaran, Nāḍavan and Munnaman with three bundles of betel leaves of the village on the understanding that, if there is any untoward incident between the married couple, she should be taken over to her father, or kept safely by them until he arrives. The girl stays with her husband in his parent's house or they live separately.

*Polygamy.*—Polygamy is resorted to by a Malayarayan with the consent of his first wife when she is childless. In such a case, both the wives live under the same roof, and the first wife is the mistress of the household. There are some who have three wives. Instances are not wanting where the wives fall out, union rendered unhappy, as it generally happens that carnal considerations form the corner-stone of such connections. The Malayarayans of the present day are mostly monogamous, and a man generally divorces his wife before he takes another.

*Polyandry.*—Polyandry is very rare. An instance of fraternal Polyandry in Chāthamblapallil in Poonjat chief's territory is freely stated.

*Divorce.*—Divorce is freely allowed. If a man is not satisfied with his wife, he intimates the fact to the village headman stating reasons. She goes back to her home, and is not free to marry any other man.

*Widow Marriage.*—Widows re-marry. A woman is not free to marry any one she likes. Generally she marries her husband's elder or younger brother, who takes care of her and her children.

(To be continued.)

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1. A. E. Crawly: *The Mystic Race*, p. 380.

2. Do. do. p. 382.

## VARNA-DHARMA VS. ASRAMA-DHARMA.

BY K. KRISHNAMACHARYA, ESQ., B.A., L.T.

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It is recognized that man is born as an individual and social being. Long after his emergence from the animal stage, the definite social man came into being, but the individual has been persisting from his very origin. The earliest of the human families were but matriarchal even as those of the animals, the father being but an occasional visitor with no feeling of attachment and thereby of liability, instinctive or otherwise, for the upkeep of the family. The mother was the true parent, both the combative and the protective instincts being blended in her. When the father ceased to be a wandering hunter, and when he interested himself in the well-being of the young, the mother willingly surrendered her ruling position, with an amount of love and sacrifice which she had acquired in the course of her evolution. Then there came a voluntary division of labour between the parents, the father taking upon him the harder defence from external dangers and the mother solely turning to the rearing of the young under the protecting wings of the father. Thus, in the course of centuries of evolution, man acquired, as the father of the family, the sterner qualities like courage, perseverance, presence of mind in moments of danger, daring venture, and so on; while woman, as the mother of the family, had her own treasure of the finer and nobler qualities like disinterested love, patience, sweet spirit of sacrifice, and so forth. By the time the human society established itself with the family as the integral unit, the wealth of the father's qualities was fully availed of for the upkeep of the whole society, and that of the mother tended to the development of the moral and spiritual side of the individual member. In other words, while man contributed more to the physical and material aspect of the society, woman added on more to the moral and spiritual aspect.

As society sufficiently advanced after settling down to peaceful life, the rich heritages of man and woman, treasured up in the long course of their evolution, found themselves fructified in a harmonious blending in the individual as a further unit of the family. Thus man came to be recognized in his double capacity of an individual and social being. Conscious and intelligent efforts were made to see to the development of both the aspects without sacrificing one for the other. As a social entity, man was ordained to make an adequate return to society for all the benefits he derived as a member thereof; and as an individual, his spiritual aspect was brought into the foreground and enriched by a series of disciplinary measures to which he had



to subject himself. This seems to have been the case in India, at any rate some millenniums ago.

We have the authority of the *Mahabharata* to say that the Aryans were at first of one community, the Brahmins. Then sprang up the Kshatriyas, and then the Vaisyas, and finally the Sudras—a fact quite scientific whatever the names of the Varnas. Therefore in one of its earlier stages, the community of the Aryans was of the *traivarnya* type—a three-fold division based upon capital and labour, physique (representing martial spirit) and intellect; or in other words, production and distribution, protection, and education. Inter-relations among the limbs were rather free. At any rate, they were not subjected to the multiplicity of restrictions one sees in the periods of later Smrithis. Birth as the only determining factor of these divisions had not yet gained recognition. The word Varna comes from the root *Vra* (to please). Since each limb pleased itself and the community as a whole by willingly performing its allotted functions, it was proud to term itself as a Varna. Each function was an absolute necessity to the community, and there was, therefore, no question of relative importance among the several functions; and consequently, grades of superior and inferior functions were still unborn. The idea of colour must have been imported later on in the word "Varna"—also from the same root meaning—when the fourth limb had been recognized and admitted into the fold.

About the times of the Rig-Veda the fourth Varna was perhaps in the formation. That this Varna was not accorded certain privileges which the other three shared among themselves seems to strengthen the suspicion that there was not much of a blood-tie or a family relation between this and any of the rest. It was only recognized at a later stage as a useful limb, and, under some restrictions, was admitted into the community, which then became the full *chaturvarnya* type. Separated from capital, labour fell to it as its distinct function—labour including agriculture and cattle-grazing which were originally in the hands of the third Varna.

Before the fourth Varna came to be recognized as such, there were some weedy outgrowths in the original *traivarnya* itself. Continued observation of certain characteristics peculiarly developed in the individuals of certain lines of families, where there were unbroken cases of children stepping into their parents' shoes as workers for the society, as against the lines of families where perhaps there were no such cases, must have naturally led to the recognition of heredity as a powerful factor in determining the degree of usefulness of the individual to the society, without an uneconomic waste of a preparatory stage. This discovery naturally brought about a readjustment of the earlier three-fold division of the community, and as a result



thereof, birth gained a recognition as a non-negligible determining factor of the divisions. In smaller societies this adjustment must have worked smoothly enough in those remote days.

Human nature carries, in its wonderful structure, the seeds of what are after a time realized as the good and the bad. Institutions invented with the best of motives often run themselves into narrow channels, and finally emerge as the ghosts of their earlier selves. Human ingenuity defies all analysis and sports in its weird dances, where one would expect a humbler and more restrained spectacle. With a fixed division of functions for the upkeep of the community, there crept in the idea of relative values of the services rendered by the several limbs, and in its wake the now unfortunate grading of the kinds of functions and the consequent relative ranks of the limbs themselves.

When the differences came to stay, the question of inter-relations among the limbs came into prominence and was crying for a definite solution. The father being the greater determining factor of the child's material usefulness to the society, and recognition being granted to the graded assessment of the values of the services rendered to the society by its several limbs, *Anuloma* marriages gained the stamp of approval at the hands of the law-givers who represented the intellect of the society; while *Pratiloma* marriages were sought to be put down with a vehemence. (When there are prohibitory injunctions against a certain course of action, the natural presumption is that the practice so prohibited must have been in existence before the promulgation of the prohibition. No injunctions are issued for or against a non-existing practice.) But this injustice was recognized at a later stage and by way of restricting the field of choice, marriages within the limb of the community were put down as the best and were almost made into a rule, with a view to help the individual in restraining the play of his senses on material objects and thereby preparing him for his spiritual evolution.

By this time, some more restrictions gathered around the limbs, circumscribing their further inter-relations in regard to food, touch, sight, etc. This, in brief, is the historical evolution of our Varna-dharma, extending over millenniums and based on a recognition of the fact that man is a social factor.

Now let us turn to the *Āsrama-dharma*. To start with, we may say that this is based on the recognition of the other fact that man is also an individual who is in the course of his spiritual evolution. That the social aspect should at no time eclipse the other, a wholesome check was sought to be put upon man's material ambition by subjecting him to a course of disciplined life marked by four distinct stages. His energy was thus sought

to be conserved for higher spiritual ends. In the first stage called *Brahmacharya*, he was to be in earnest pursuit of knowledge under a preceptor, rigorously keeping himself from all grossly material attractions and training himself in several aspects of self-help. In order that he might realize in his life the dignity of labour he was to do all possible services to his preceptor.

Next came the stage where he had to function mainly as a social factor. This is called the *Gārhastya* stage. Here, though in the midst of the sensuous, he was not to lose himself therein. He had to observe a restricted contact with the material objects of the senses so that a recoiling might be possible when called upon. He was required to acquire only with a view to give up for good causes without the least pain. He was to maintain not only himself and those around him, but also such of those in the first or the fourth stage as might happen to seek his services. Now was the time when the member of the first Varna had an additional duty imposed on him. As a preceptor he had to take in Brahmacharins for educating them on the lines through which he himself had passed in his first stage. The only return he was to expect from them was in the form of services rendered unto him. And these too he was to exact not for his own sake but in their own interests, though the disciples in their turn had to pay the preceptor an honorarium at the end of their courses of study. Thus he was to continue discharging his duties towards society in actively identifying himself in its system of education for the young.

In the third stage called *Vānaprastha*, the individual was required to abdicate all his positions of vantage as the head of the family and with them all his material possessions in favour of those next in succession in the family ranks, and retire to a secluded spot away from the din of the social circles. He might requisition the services of his partner in life for the duties enjoined on him in this stage. He had to maintain himself only on roots and fruits as preparatory to the last stage. The serene atmosphere of the forest homes so captivated the minds of the sages that the succeeding generations of families finally settled there and practised the several stages of the individual evolution.

The last stage was that of the *Sanyāsa*. Here the individual after fully realizing his spiritual aspect was to detach himself completely from even the thoughts of the grossly material. He was to gain a tranquillity of mind by which his soul could maintain a wonderful equilibrium between pleasure and pain, success and failure, and so on. Even here his duty to society was not overlooked. He had to carry among the lesser souls his beautiful spiritual message and enlightenment, even in the remotest corners of the land. To this end he was always to be on the move.

It may be noted that, in these several stages, the individual had to observe certain recognized uniformity of dress and other simple external symbols, indicative of the *Asrama* through which he was passing. We of the twentieth century need not look askance at the simple uniforms (to use our present-day expression) when we have a variety of uniforms for anything and everything.

That the entry into the several stages might not be abused, the stamp of social recognition had to be affixed by making the occasion public in the case of any individual, be he of whatever social rank. This publicity was ensured by taking away the initiative for the entry from the hands of the individual, and entrusting it to those of another who was to be a preceptor to the initiated, especially in the first and the fourth. That the uniform costumes and the publicity of the initiation might have been later than the conception of the four-fold disciplined life we can easily infer since these do not form the *dharma* implied in the term *Āsrama-dharma*.

A judicious adjustment of the *Varṇa-dharma* and the *Āsrama-dharma* was expected to serve the main purpose of man's birth on this planet—his own spiritual evolution with an incidental service to his society ensuring its advance to a higher stage of perfection. This adjustment was effected, and we have now, as a witness thereof, the once beautiful term *Varṇāśrama-dharma*. It was, at the time when man was recognized in his double aspect of a social and individual entity, that this adjustment was brought about. It may be that the *Varṇāśrama-dharma* of to-day has permitted itself the pleasure of a luxuriant growth of weedy elements disfiguring the very central and beautiful structure within. That is no reason why it should be destroyed, root and branch. Prudence and foresight can yet step in, and by a careful handling of the pruning knife, give us once more the ideal imbedded beyond recognition in the weedy growth.

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## THE HINDU ARABIC NUMERALS.

BY A. A. KRISHNASWAMY AYYANGAR, ESQ., M.A., L.T.

(Continued from Vol. XIX, No. 1.)

### CHAPTER VI.

#### A Review of the Evidences regarding the Indian Origin of the Modern Notation with Place-Value and Zero.

As Mr. R. C. Dutt has put it, the history of Ancient India is a history of thirty centuries of human culture and progress and ancient Hindu literature takes us naturally far beyond the golden age of Greece. The earliest effusions of Hindu thoughts, ideals, and speculations are preserved in that monumental work, the Vedas which are considered to be the highest authority among the Hindus for all time; and it is remarkable to find what excellent precautions have been taken from time to time to prevent these records from corruption and interpolation, by means of a system of checks and counter-checks such as the following :—

- (i) Special injunctions that knowledge should be learnt only from a Guru and not directly from the texts. This is probably due to the fear that texts may be corrupted or misread, while a Guru may be expected to transmit true knowledge.
- (ii) More importance was given to *stvara* and proper pronunciation than to meanings in recitations, the phonetic changes being recorded from time to time accurately in the *Pratisākyasūtras*.
- (iii) The metrical form conforming to fixed laws which render alterations difficult.

All these give us a vivid picture of the scrupulous care with which the ancient texts have been preserved in India—a feature unparalleled in the histories of the other nations. The same scrupulousness, as has been pointed out already (*vide* p. 31 *supra*), prompted the early Hindus to invent the alphabetic and the word-numeral notations for numerals.

The development of the science of language, especially grammar, is also unique in India and dates back to some centuries before the Christian era. Witness the magnificent edifice of Sanskrit grammar due to Panini, the greatest grammarian that the world has produced. In Albrecht Weber's words, ' Panini's Grammar is distinguished above all similar works of other countries, partly by its thoroughly exhaustive investigation of the roots of the language and the formation of words; partly by its sharp precision of

expression.....This is rendered possible by the employment of an algebraic terminology of arbitrary contrivance, the several parts of which stand to each other in the closest harmony, and which, by the very fact of its sufficing for all the phenomena which the language presents, bespeaks at once the marvellous ingenuity of its inventor and his profound penetration of the entire material of the language.' Here we have an indication of the remarkable aptitude of the Hindu mind for algebraic symbolism with its elegant conciseness, and this is well manifested in the *Dasagitika-sutra* of Aryabhata, which embodies the astronomical tables in a peculiar algebraic notation (*vide p. 20 supra*).

Further, in one of the Buddhist sacred books, the *Lalitavistara*, the hero Buddha is made to give out a scheme of names for large numbers, which go as far as  $10^{53}$  and which the hero is prepared to extend unto Mahakalpas by a scale of orders of infinity (असंख्य) 'which is the tale of all the drops that in 10,000 years would fall on all the worlds by daily rain'. This reminds us strongly of the sand-reckoner of Archimedes (*vide pp. 227-229, The Work of Archimedes*, by T. L. Heath. C. U. P. 1897).

When the Greeks could devise a sand-reckoner with their traditional names of numbers not extending beyond a myriad (*i.e.*, 10,000), it is no wonder that the Hindus could think of scales of big numbers when they had regular traditional names upto  $10^{18}$ . Again, surprises of genius are not uncommon in India. A Ramanujam in the twentieth century, without any proper training worth the name, was able to dream of problems which it had taken a hundred years for the finest mathematicians of Europe to solve and of which the solution is incomplete even to-day (*vide Proceedings of the London Mathematical Society*, Vol. 19, second series). When such has been the case, is it difficult to believe that the sand-reckoner of Archimedes could have been anticipated by a genius like Buddha, who was destined in later years to preach a religion which, of all religions, has the greatest number of adherents and which has influenced the morals and given spiritual comfort to hundreds of millions? (*Vide The Travels of Fahien*, translated by H. A. Giles, C. U. P., 1923.)

We may also mention that before the Christian era, there existed a tract on astronomy forming the sixth and the most important limb of the Vedas, which gives us an idea of the number work of those early ages (*vide Monier Williams' Indian Wisdom*, pp. 144, 177). In a very early document of the Hindus, the *Sulva-Sutras* in which practical methods are devised for the construction of altars to please the immortals, we find remarkable evidences of mathematical logic and acuteness displayed. It is specially noteworthy how our ancient Acharyas tackled the two kinds of irrationals  $\sqrt{2}$  and  $\sqrt{\pi}$

by rational approximations, impelled, as Thibaut admits, by the earnest desire to render their sacrifice in all its particulars acceptable to the gods and to deserve the boons which the gods confer in return upon faithful and conscientious worshippers.

All this implies a considerable advancement in arithmetic in very early times. Since the appearance of Mon Schroeder's important work *Indiens Literatur und Cultur* (Leipzig, 1887), the old view due mainly to Cantor that Indians owe all their mathematics to the Greeks is getting superseded by the sounder opinion that Hindu geometrical theory and conception of irrationals, etc., are entirely original, despite the unwarranted insinuations of Mr. Kaye in his article 'The Source of Hindu Mathematics', *J.R.A.S.*, 1910.

The above is a brief review of the original achievements\* of the Hindus in several directions in very early times and although it does not bear directly on the origin of our numerals, yet it is highly relevant as showing the aptitude of the Hindu for mathematical and mental work of no inferior order.

The Hindu origin of the modern numerals with place-value is very likely; but we have no definite documentary evidence for it. We are entirely in the dark about their early inception; but we are more or less on safe ground as regards their development in India, the approximate period of the conception of the place-value, and the spread of the numerals through the Arabs to Europe.

Ages ago, suggestions for the forms of these numerical symbols may have been received from the Egyptian, Phœnician, or Chaldean sources; but any attempt to develop a consistent theory regarding their foreign origin, Semitic or otherwise, would be only as futile as the several fanciful hypotheses discussed by F. Cajori on the origin of the numeral forms (*vide The Mathematics Teacher*, March 1925). Theories are not wanting, however, to derive the Indian numerals from—

- (1) the order of letters in the ancient alphabet,
- (2) the alphabetical expressions of certain syllables called अक्षर which possessed in Sanskrit some fixed numerical values,
- (3) the first nine letters of the Greek alphabet (*vide The Mathematical Gazette*, July 1925),

and so on. But none of these conflicting theories give any satisfactory solution and, indeed, Messrs. Smith and Karpinski state that upon the evidence at hand, we might properly feel that everything points to the numerals as being substantially indigenous to India. We may notice also

\* For a highly authoritative exposition of the achievements of the Hindus in the positive sciences, *vide The Positive Sciences of the Ancient Hindus*, by Dr. Brajendranath Seal.

some characteristic features in the development of the Indian notation which go to prove the same fact.

The early origin of the numerals must always remain obscure for two reasons :—

- (1) The development of the notation has been very slow, extending over several centuries; and there are no authentic histories available earlier than the commencement of the Muhammadan era, *i.e.*, 622 A.D., while there are evidences to show that the place-value notation in some form was current earlier than this date.
- (2) The positional idea may have flashed in a moment of truly divine inspiration to some unknown Hindu genius, who with his characteristic humility did not care to associate his name with it as its inventor but ascribed it to god.

Mr. G. R. Kaye is not tired of mocking at this Hindu trait (*vide* his article 'Old Indian Numerical Symbols' in the *Indian Antiquary*, Vol. XL, p. 49, and his book *Indian Mathematics*, p. 31) and makes us understand that the earlier investigators on the subject of numerals were misled by the orthodox Brahmin opinion that 'the invention of the nine figures with the device of places to make them suffice for all values being ascribed to the beneficent Creator of the Universe' (quoted from Krishna's commentary of Bhaskara's *Lilavati*—*vide* Colebrooke's *Translation of the Lilavati*).

In an article entitled 'New Light on Our Numerals', Mr. Ginsburg wrote, in 1917, "that our common numerals are of Hindu origin seems to be a well-established fact and that Europe received them from the Arabs seems equally certain but, how and when these numerals reached the Arabs is a question that has never been satisfactorily answered." A new light had been thrown on this question by Mr. M. F. Nau's publication in the *Journal Asiatique*, of an important fragment of Sebokht's writings in which there is a direct reference to the Hindu numerals. But Mr. Kaye has no faith in Nau's evidence (*vide* his *Indian Mathematics*, p. 31).

Severus Sebokht of Nisibus belonged to the second half of the seventh century and was a distinguished scholar in philosophy, mathematics and theology. He was the head of a convent in Nisibus, a great commercial centre and had numerous pupils through whom his knowledge could have been transmitted to other scholars all over Syria. Remembering that Syrian scholars were employed by the Caliphs as translators and educators we could easily understand how the Syrians could have imparted the knowledge of the Hindu numerals to the Arabs along with other facts relating to sciences. But how did Sebokht come to know of the Indian numerals? Since the



exchange of goods and the exchange of ideas always went together, the trader and the traveller were busy agents in the transmission of numerals from the East to the West and it is not unreasonable to surmise that in an important centre like Nisibis of a very extensive trade, different systems of numeration were known and attracted the attention of an intellectually alert man like Sebokht. Of the Hindu numerals, Sebokht speaks in the following high terms of praise :—

" I will omit all discussions of the Science of the Hindus, a people not the same as the Syrians. . . . their valuable methods of calculation and their computing that surpasses description. I wish only to say that this computation is done by means of nine signs. . . . "

Among other evidences of the Indian origin of the decimal notation with its zero, we have already referred to—

- (1) The use of 'Sunya' in the *Suryasiddhanta* and the works of Varahamihira.
- (2) The variants of position arithmetic found in the word-numeral notation of Brahmagupta and the Katapayadi scheme of Aryabhata, the younger, such variants being most likely to occur only in the country of its (position-arithmetic's) origin.
- (3) Subhantu's mention (in the sixth century A.D.) of the zero-dot-symbols in a simile describing the stars.
- (4) The reference to numbers taking different values according to their position, found in Vyasa Bhashya of Patanjali's *Yoga-sutra* which cannot have been composed later than 600 A.D.

But an argument against the Hindu knowledge of these symbols is that the Arabs about 700 A.D. did not know of them, but looked upon them as a strange invention when they were introduced to them in 776 A.D. Since the Arabs had just then come to rob India of her wealth and had yet no idea of plundering her culture, it is no wonder they did not know of the symbols. We can easily imagine a parallel instance in modern times of a lay traveller in civilized Europe not knowing anything about the modern theory of Relativity. It takes certainly some time for the latest discoveries and inventions to trickle down to the level of comprehension of the common herd of people.

As regards epigraphical instances (instances in copper-plate land grants) of the use of the nine-symbols with zero, there is some doubt. Dr. Fleet in the *Indian Antiquary*, Vol. XXX (p. 205), holds that many epigraphical forgeries (since the copper-plates were deeds of property) were made about the end of the eleventh century. This accounts for Mr. Kaye's sweeping remark that epigraphical evidence is the most unreliable so far as India is concerned



(vide *J.R.A.S.*, 1910). But Colebrooke takes a more rational view and points out that the value of the evidence is not on that account totally invalid, since a successful forgery has to imitate the writing of the period in question adhering to the then current notions and traditions.

Some of the most important of the several epigraphical instances of the use of numerals given by such high authorities as Buhler, Kielhorn, Bhandarkar who are entitled to our greatest respect are quoted below :—

- (1) Gurjara inscription of Chedi Samvat 346 (595 A.D.) contains the oldest epigraphical use of alphabet numerals with place-value. (Buhler.)
- (2) A Pathari pillar inscription of Vikrama Samvat 917 corresponding to 861 A.D. A copper-plate (Kadab-plate) inscription, dated Vikrama Samvat 813 (756 A.D.). (Kielhorn.)
- (3) A stone inscription of 815 A.D.; Dhulpur stone inscription of 842 A.D. (containing the date in word-numerals); another inscription incised on a pilaster, dated 798 A.D.

(Dr. D. R. Bhandarkar.)

If we find the numerals in inscriptions as early as about 750 A.D., the system must have been in existence at least one or two centuries earlier. Even in Europe, it was only two hundred years after the introduction of the numerals that they began to appear on inscriptions and coins. Even Thibaut assures us that the Indian origin of the system now in use cannot be doubted. The united judgments of these scholars point to the rise in India of the modern system with place-value as early as 600 A.D.† The only dissenting voice is that of Mr. G. R. Kaye whose hypotheses we shall discuss presently.

#### Mr. G. R. Kaye's Refutation of the Indian Theory.

##### Re-examination of his Hypotheses and Arguments.

The following statement in *J.A.S.B.*, Vol. III, No. 7 (1907), gives in a nutshell Mr. G. R. Kaye's position regarding the origin of the modern notation.

'The character of the Indian scripts, the evidence of inscriptions, the nature of the early notations in use among the Hindus, the nature of their mathematical works; the very custom at the present time among the Hindus who work on purely indigenous lines point to a foreign origin of the modern notation as probable; while the foundations of the arguments of those who believe in an Indian origin are now shown to be either absolutely

† In Vol. XIX, p. 867, *Encyclopædia Britannica*, Eleventh Edition, Prof. W. Robertson Smith writes 'What is quite certain is that our present decimal system, in its complete form, with the zero which enables us to do without the ruled columns of the abacus, is of Indian origin.'

unsound, almost unreliable; and consequently the Indian theory, if it is to stand, must be re-stated.'

Mr. Kaye claims to show that the premises utilized by such eminent orientalist as Chasles, Peacock, Woepecke, Cantor, Bayley, Buhler and MacDonell are all unsound and that their inference from such premises that the modern Arithmetic notation is of Indian origin is also untrue. He asserts that they were all misled by the boasting claims of antiquity (for their knowledge) put forward by the Brahman commentators. But he contradicts himself elsewhere (*J.A.S.B.*, p. 813, 1911) by noting that the Hindus never claimed to have invented the new notation and adds 'neither did they claim originality in Mathematics'. According to him, Bhaskara often speaks, with disdain, of Hindu mathematicians and refers to certain 'ancient teachers' as authorities. In Kaye's logic, however, these ancient teachers, not being named specifically, must have been the Greeks. Thus his arguments are very subtle and he shifts his ground quickly and imperceptibly. His misrepresentations (to quote his own expression) are 'all the more dangerous by appearing less startlingly false'. He is skilful in utilizing the statements of his authorities just to such an extent as will be favourable to his pre-conceived theories.

One of the fundamental principles of our critic is this. To accept anything as of Greek origin, any remote analogy is sufficient, while to show that anything is of Indian origin, numerous unmistakable evidences must be produced. Thus the slight resemblance of the Bakshali symbol (<sup>38</sup>) to the Greek symbol (<sup>39</sup>) used by Diophantus\* is enough to betray the Greek source, while, however patent and obvious the reference to Hindu sources in Greek or Arab writings, it is not sufficient to warrant the inference of a borrowing from India; for, in such a circumstance, Mr. Kaye is prepared to misread and misinterpret the texts as in the case of the Arabic words Hindisa, Hindi, Hindasi and give other† meanings to these words, blaming encyclopædias and dictionaries for not giving that interpretation which will suit his purpose.

The most favourite and frequent of Mr. Kaye's fallacies is his generalization from one favourable instance. Since Dr. Fleet has changed the order of the figures in गिरिसवसु into 'vasus, flavours and mountains', our critic generalizes, from this instance, that copyists have always had the tendency to adapt

\* As Dr. Heath suggests, the symbol of Diophantus is not really the inverted letter (<sup>39</sup>) but the uncial combination of  $\Lambda$  into  $\Lambda$  and it is absolutely rash to connect  $\Lambda$  with + of the Bakshali manuscript. Further Diophantus places this sign before the quantities to be subtracted, whereas in the Bakshali manuscript, the sign comes after the number to be subtracted.

† Vide G. H. Ojha's comment on Mr. Kaye's interpretation of the terms Hindisa, etc., in *The Palaeography of India*, p. 119.

notations to the system in vogue in their own times ; and hence, he would not trust anything but really first-hand evidence on which alone his conclusions should be based. But, is our critic really giving us a first-hand instance when he quotes an example of a Greek notation of the time of Herodotus ?

We shall now take up, in order, the hypotheses on which Mr. Kaye relies for his non-Indian theory.

Mr. Kaye presumes that it would be natural to expect number-words and symbols to be affected by the mode or direction of the writing. For example, it would appear strange to see numerical symbols written horizontally in conjunction with a vertical script. Since the numerals (in the Indian notation) increased in value towards the left and not towards the right, 'the notation was introduced into India as it was into Europe from a right to left script'. On this hypothesis, Mr. Kaye points out the error in Burnell's translation of 'अङ्कानां वामतो गतिः' into 'the order of the letters (*viz.*, numerals) is from right to left'. To Mr. Kaye, the order of the letters is the order of the script (*i.e.*, from left to right in the Indian script); but the numbers are always expressed with the smaller elements first and not, as is the custom now, with the higher elements first.

Mr. Kaye's hypotheses are partially right while his inference is absolutely wrong. In numeration, the natural order is that of counting, *i.e.*, proceeding from the smaller to the bigger numbers. This is consistently followed in Indian numeration in which the smaller elements come first, *Ex.* एकविंशतिः = one and twenty. Relics of this form are found also elsewhere ; for instance, the French Quatre-vingt = four times twenty. But, as pointed out elsewhere the practice in notation has in almost all countries been to put the bigger elements (probably on account of their greater importance) before the smaller ones. Now, the terms 'before' and 'after' are relative to the script in use. Thus in a right to left script, the bigger element would be written naturally to the right of the smaller, while in a left to right script, the bigger element would be written to the left of the smaller. We have actual illustrations† of such a use, which confirm our view (*vide* pp. 2, 3 *supra*). Mr. Kaye himself quotes instances of the Hebrew notation (²) found on coins ; in which the higher order numbers occur first in the right to left order. He is unable to explain the mystery of this notation, for which we have here found a key. Again, when the Hebrews as well as the Arabs adopted the other order (*i.e.*, the Indian (⁴⁰) order) which is inconsistent with their script, it must be clearly due to the influence of the Indian numerals. An explicit mention of such a rule as 'अङ्कानां वामतो गतिः' was found necessary to point out the difference between the orders of numeration and

† *Vide* pp. 112, 113, *The Palaeography of India*, by G. H. Ojha (2nd Edn., 1918).

notation in India. In Europe, however, this difficulty was solved by changing the original order in their numeration and adapting it to the new notation. Thus we have evidences of two different kinds of numeration in the English language, one set of numeration from thirteen to nineteen and another kind from twenty-one onwards.

Mr. Kaye wishes to point out also that the bigger element coming to the right of the smaller would be the more convenient and natural order and refers us to Perry's *Practical Mathematics* and to works on the 'Theory of Numbers'. This order is, of course, (convenient and even) absolutely necessary when the highest order number is undetermined and indefinite as in:  $a + br + cr^2 + \dots$ . But in Arithmetic, where the digits have definite values and the higher orders more significant and important than the lower ones (as for example when we give the population of a country to the nearest million) the present order is naturally more convenient. The convenience becomes markedly obvious in such continued processes as division or extraction of square-root, where the movement from left to right will be appreciated by those accustomed to the left to right script.

We shall next examine Mr. Kaye's view of the epigraphical evidences.

The earliest epigraphical instance of the new notation quoted by Dr. Fleet is Saka 867 (A.D. 945-946). But according to Dr. Linders, the earliest is the stone inscription of Dholpur, dated Vikrama Samvat 898. While Buhler's Chicacole inscription of 641 A.D. is now known to be spurious, Dr. Linders and Dr. Fleet doubt the Kadab inscription of 813 A.D. Mr. Kaye himself has come across only two instances of the symbolic words of the ninth century, three of the tenth and a few of the eleventh, but numbers of later date. This gives rise to suspicion in Mr. Kaye's mind and Mr. Damant is quoted as saying: 'The practice does not seem to be one of very great antiquity and many of the supposed older dates are doubtful' (*vide Indian Antiquary*, VI, 13). In this way, seventeen of the earliest Indian epigraphical instances due to Fleet, Kielhorn and others are quoted and all of them rejected as worthless on a policy similar to that adopted by the wise Caliph Omar who gave orders to the burning of the Alexandrian Library.

The epigraphical records are believed by Mr. Kaye to be either ingenious forgeries or wrongly interpreted by epigraphists who assumed that the new notation was common in India much earlier than the ninth century. Mr. Kaye would require the epigraphists to re-interpret these records with a contrary assumption in their minds. Meanwhile, he would hypnotise himself into the strong conviction that the figures given either stand before him in a suspiciously modern form or do not allow of any direct interpretation, or are

proved to be spurious, or that the record shows some signs of being tampered with. Even the unsuspecting dates such as the Bagamara Inscription of A.D. 867 (*vide Indian Antiquary*, XII, 181, XVIII, 56, and XXIII, 131), by the very reason of their uniqueness, call for explanation. After examining all these evidences, Mr. Kaye could conscientiously come to the only conclusion that to the eleventh century only we should turn for evidence of the use of the modern system of notation in India.

We shall next turn to the historical evidences. Mr. Kaye, as usual, laments that the so-called historical evidence is of so little avail for him. In his opinion, even such a reliable investigator as Alberuni says little pertinent to the question in hand, even though he mentions in unmistakeable terms (*vide Alberuni's India*, Vol. I, pp. 174 and 177).

'The Hindus do not use the letters of the alphabet for numerical notation as we use the Arabic letters in the order of the Hebrew alphabet. The numeral signs which we use are derived from the finest forms of the Hindu signs..... I have studied the names of the orders of the numbers in various languages.....and have found that no nation goes beyond the thousand. The Arabs too stop with the thousand.....'

The Hindus use the numeral signs in Arithmetic in the same way as we do. I have composed a treatise showing how far, possibly, the Hindus are ahead of us in this subject.'

In the face of such plain confessions of Hindu superiority at least in arithmetic, from one who has frequently spoken of the Hindus in terms of contempt, Mr. Kaye tries to utilize to his sinister logic an exaggeration of Alberuni that the Hindus\* he came across did not know the fundamental principles of mathematics and says that Alberuni's statement must be read in the light of this. Further Mr. Kaye doubts whether Alberuni was in a better position to judge of the Hindu numerals than Canon Taylor who is certainly wrong in his conclusion. We believe, however, that Alberuni was certainly in a better position, for he came in living contact with the Hindu numerals actually in use about eight hundred years before Canon Taylor and must have, therefore, been in possession of much better and more reliable evidence than Canon Taylor could get in his time.

It is interesting to see how Mr. Kaye disposes of the tradition of an Indian origin that existed among the Arabs. Now he adopts his usual trick of viewing an authority as sound or unsound according as he does or does not

\* I doubt whether Alberuni really came across Hindu mathematicians of repute. He gives a list of word numerals in use in his time and among the symbols for ten, he includes ignorantly खेन्दु as if it were one word. (खेन्दु=ख + इन्दु.)

This is one indication that he could not have picked up his knowledge invariably from authoritative sources.

fall in with his pre-conceived notions. He accepts Wopecke's authority when he (Wopecke) says we cannot attach any value to such references found in the commentary on the Talkhis of Ibn Albanna and a commentary by Husain Bin M. A'lmahalli on a work by Abdul Kadir Alsakhwi as follows:—

"A Hindu took some fine powder, spread it on a table and made upon it certain calculations and then put it away for future reference." But he rejects the same authority as unsound when he translates 'Hindasiyyat' as Indian, Mr. Kaye would like him to interpret it as 'geometrical' whether it gives sense or not in the context. He contends, in this connection, that the regular *duorum falsorum* or operation of the balance is derived geometrically and therefore Ibn el-Benna's explanation should be interpreted, 'As to the balance, this procedure is a geometrical (not Indian, though the Arabic word admits of both interpretations) method.' In support of his interpretation, a geometrical elucidation of this principle due to El-Sabi is quoted. El-Sabi proves in the manner of old Euclid that if the line  $ab$  is divided into three parts  $ag$ ,  $gd$ ,  $db$ , then  $ab \cdot gd + ag \cdot bd = ad \cdot bg$  and tries to deduce from this the principle in question. I fail to see any connection between the two results except perhaps some remote analogy. The explanation is really unsound; properly speaking, the principle of proportion must have been used to explain the rule. But the early Arabs were not quite proficient in proportion as evidenced by Musa's method of finding the length of a side of a square inscribed in an isosceles triangle (*vide* his Algebra translated by F. Rosen); while it is interesting to add that though the Hindus have not mentioned (so far as the extant texts go) the rule in the particular form in which it is found among the Arabs, the substance of the rule has been more scientifically utilized by Aryabhata in his mensuration of the trapezium and by Brahmagupta and Bhaskara in the rules of interpolation connected with their sine-tables.

Again, in another connection, where Ibn Sina relates the properties of squares and cubes (*viz.*, the square remainders are respectively 1, 4, 9, 7 while the cube remainders are 1 and 8), Mr. Kaye asserts that the interpretation 'geometrical' is sounder on the strength of a geometrical proof\* devised by himself. It is an elementary mathematical platitude that with a little ingenuity many elementary theorems (in mathematics) can be graphically or geometrically demonstrated and on that account alone any arithmetical or algebraic theorem should not be called geometrical.\*

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\* One of the finest theorems in Higher Arithmetic is the Legendre's Law of Reciprocity which is proved partly geometrically. There are several such instances of geometrical investigations in the Theory of Numbers. But the theorems on that account are not called geometrical. (*Vide* Mathews' *Theory of Numbers*, pp. 41, 42 and Chapter IV, Binary Quadratic Forms: Geometrical Theory.)

Apart from the reference to Indian numerals in Arabic texts, certain mediæval works also contain unequivocal mention of the modern system of arithmetical notation as Indian. Mr. Kaye himself admits the difficulty in interpreting 'Indian' as 'geometrical' when the term is applied to numerical symbols. How then does he solve it? The Greek geometrical terminology for numbers comes to his rescue. The Greeks termed odd numbers gnomons, compound numbers oblongs, the product of two numbers plane, and the product of three numbers solid, while there were other numbers known as triangular, square, cube, polygonal, etc. There is, besides, the famous geometrical number of Plato. But nowhere do we find the appellation 'geometrical' in Greek texts applied as a generic term for any number. Only particular types of numbers have been called geometrical and it does seem certainly far-fetched to call all numerals geometrical. If the reasons for the wrong interpretations of the Arabic word into 'Indian' be due, as Mr. Kaye believes, to the following false premises:—

- (i) the word cannot by any possible means imply 'geometrical' in the passage referred to,
  - (ii) a statement by Taylor in his Introduction to 'Lilavati',
  - (iii) the Arabs owe their knowledge of geometry\* to the Hindus,
- the reasons for the other interpretation 'geometrical' due to himself are based on another set of unreliable and unverified hypotheses:—
- (a) the theorem referred to can be proved geometrically (as indeed any other elementary arithmetical theorem);
  - (b) the abacus was never in use in India;
  - (c) the Hindus owe their knowledge of arithmetic to a foreign source.

Thus the balance of wrong hypotheses is equal on both sides and we stand unconvinced by Mr. Kaye's eloquent outbursts of plausible reasoning.

Let us now record Mr. Kaye's view of the use of the abacus in India.

According to Mr. Kaye, the examples of the existence of abacus quoted by such writers as Warren, Bayley, Burnell are all too modern to be of any value. Burnell in his *South Indian Palæography* tells us that the Indian abacus was by using heaps of cowries for the numbers, the number of these shells being equal to that of the number expressed, the cipher (०) being a blank space. He adds "Warren in his *Kalasankalita* mentions a counter to express the cipher, but I have never found this to be done." Mr. Dikshit mentions the use of a wooden board called *गणनी* which is covered with dust

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\*I believe Mr. Kaye meant 'arithmetic' by the word 'geometry' and in the heat of the argument, made no distinction between the two words.



when used for purposes of reckoning; the numerals used while working on this plank were called by the Arabs Gobar or dust numerals. Alberuni's reference to the Indian custom of writing on the sand and the use of non-alphabetic numeral signs also indicates the use of some form of abacus. There is a relic of this ancient sand-writing custom even in modern times in the Burmese practice of writing on the ground in the dust or on black paraback. All these evidences are worthless and irrelevant to Mr. Kaye and he does not want to accept that one form of abacus was 'a tray containing sand which could be readily grooved with the fingers'. He imagines that there is a confusion between the terms 'abacus' derived from 'Abaq' (sand), 'Gobar' (powder) and 'writing in the dust'.

Taylor, Woepecke, Bayley, Burnell and others derive the Sanskrit word शून्य from the vacant space in the abacus. According to Taylor the word शून्य was translated into Arabic by the word 'Syfr' having a like meaning. Dr. Murray's *New English Dictionary* also confirms the derivation of the word 'Cypher' from the Arabic 'Syfr' and Sanskrit 'Sunya'. According to Mr. Kaye, all these authorities are unreliable, for it is very doubtful—

- (i) whether the so-called Arabic numerals are really Indian;
- (ii) whether the Arabs really received their numerical notation from India;
- (iii) whether any form of abacus was in use at all in India.

In his logic, since there is no direct evidence\* that the abacus was in existence in Ancient India, the Indians could not have invented the zero symbol also. In the present writer's opinion, the abacus is not a necessary and indispensable precursor of the zero. The early word numeration of the Hindus which gave, in order, the number of units, tens, hundreds, etc., in a number leads, naturally, to it. Further, history tells us how the abacists and the algorists were at logger-heads in Europe between the twelfth and the fourteenth centuries.† Especially, it is a noteworthy fact that the abacists had a contempt for the zero which is a clear evidence to show that left to themselves they would never have invented the zero symbol.

We shall next take up the evidences of place-value notation found in Indian arithmetical treatises and examine how Mr. Kaye handles them.

While he puts up such a fight for the interpretation of the Arabic word 'hindsa', he coolly ignores several explicit instances in Indian arithmetical treatises of using the word स्थान (place) in connection with numerals. Rodet's translation of the term स्थानान्तरे in Aryabhata's text explaining the ordinary method of root-extraction :—

\* Dr. Fleet's reference to गणित्र (an instrument to reckon with) in *J.R.A.S.*, 1911, has been noted elsewhere.

† Vide Smith and Karpinski's *Hindu-Arabic Numerals*, p. 120.

भासं हरेद्वर्गमित्यं द्विगुणेन वर्गमूलेन ।

वर्गद्वये शुद्धे लब्धे स्थानान्तरे मूलम् ॥

by 'à distance d'une place' or 'à intervalle d'une place on d'un rang' is wrong in Mr. Kaye's opinion. Mr. Kaye gives us a warning that we should not be misled by the commentators who came very much later than the original writers (and knew the decimal notation), while he himself misleads us by quoting a problem from Iamblichus (360 A.D.) as affording a distinct proof that the Greeks had perfectly clear ideas of the value of position (unlike the Hindus).

The problem as stated by Kaye is this :—

'If the digits of any three be added together and the digits of their sum be added together and so on, the final sum will be six', which is, of course, mathematically wrong.\* Mr. Kaye, I believe, purposely mistranslates the Greek text in order to give undue credit to the Greeks. The use of the word 'digit' is unwarranted. The word 'digit' has no meaning and no counterpart in the Greek non-positional notation. The correct text as translated more faithfully by Dr. T. L. Heath runs thus :—

'Take the sum of the three consecutive numbers the greatest of which is divisible by 3; this will consist of a certain number of units, a certain number of tens, a certain number of hundreds and so on. Take the units in the said sum as they are, then as many units as there are tens, as many units as there are hundreds and so on and add all the units so obtained together. Apply the same procedure to the result and so on. Then the final result will be the number 6.' The problem stated as above contains really no suggestion of the place-value.

The practice of adding certain units comprised in a number was common among Kabbalists who were attaching mystic significance to numbers; thus ALSHDI, Alshaddai, or God Almighty is equivalent, when interpreted as Hebrew numerals, to 1, 30, 300, 4, 10 (or 345) and the units 1, 3, 3, 4, 1 being added up yield 12 and 1, 2 added together yield 3 suggesting the trinity in God. This shows that no digits were added but merely the number of units, tens, hundreds, etc., denoted by the alphabetic numerals forming a number. It is a far cry from the letters such as A, L, Sh, D, I comprised in a number to the notion of digits with a place-value

\*Mr. Kaye fails to mention that the numbers must be consecutive (and not any three) of which the highest must be a multiple of 3. This error is probably unconscientious. But in other places, he indulges in wilful mistakes, which is quite unpardonable; for instance (i) he says that the Katakpayadi notation and Aryabhata's notation are alike, (ii) in interpreting राघवाय numerically, he wishes to suggest a kind of non-positional notation by putting  $\text{र} = 2$ ,  $\text{घ} = 0$ , ... etc., (iii) the word numeral notation was introduced into India about the ninth century (*vide The Indian Mathematics*, p. 31).

and it will be certainly a foolish fancy to infer place-value notation from such instances.

Though we find a method of extracting square-root given in Greek texts similar to that of Aryabhata, yet, in no extant Greek writer do we find any description of the operation of extracting the cube-root\* while it is a noteworthy fact that methods for finding cube-root are mentioned in all the Indian arithmetical treatises from Aryabhata onwards. This is a sufficient indication that the Indian methods developed independently of the Greek. The Hindus, with the advantage of their decimal notation and their aptitude for algebra could easily extend their method of finding the square-root to cube-root also; but the Greeks with their geometrical bent of mind and their non-positional notation, could not evidently proceed beyond the square-root for which they got the suggestion from Euclid.

It is a futile argument that the place-value notation could not have been in vogue in India, because even to the present day the Hindus taught on indigenous lines, learn tables of squares to a prodigious extent. Even to-day, we are using tables of squares, cubes, logarithmic tables and ready reckoners to facilitate our computation and the existence of such tables does not signify really a non-positional notation in use.

Another argument put forth against the Indian theory is that its use is not indicated in the rules for the fundamental operations given by Brahmagupta. But his use of the word 'गोसूत्रिका' (string for cattle) in connection with multiplication suggests that the digits of a number are written (possibly in separate compartments) in a horizontal row while the multiplier is taken into each of these digits and the individual products summed up finally. Brahmagupta suggests also some short method of multiplication (something like the familiar rule, to multiply a number by 99, multiply it by 100 and subtract the number itself) in the following verse:—

गुण्यो रात्रिगुणकार रात्रिनेष्टाधिकोनके न गुणः ।

गुण्येष्टवचनयुतो गुणकेभ्यधिकोनके कार्यः ॥

i.e., if the multiplier be too great or too small (as compared with the intended multiplier) the multiplicand is to be multiplied by the corresponding excess or deficit and this product is subtracted from or added to the (original) product.

As the commentator remarks, this rule is intended to correct errors in cases where, by mistake, the multiplicand has been multiplied by a number too great or too small.

There is hardly anything in the above rules specially convenient for non-place-value notation, nor can one infer from them, circumstantially, that the place-value was not known to Brahmagupta.

\* *Vide Greek Mathematics*, by T. L. Heath, Vol. I, p. 63 and Vol. II, p. 341.

Another evidence adduced in support of the non-Indian theory is that among the few still extant old arithmetical practices, the old ideas of notation (non-positional) prevail as in the case of the Burmese Arithmetical operations pointed out by Sir R. Temple (*vide Indian Antiquary*, Vol. 1891). This is, in Mr. Kaye's mind, the proof absolute that the new notation is not of Indian origin. To this we shall reply "Why does not Mr. Kaye accept, reasoning on the same lines, that since in some parts of India, the abacus is still used, the abacus must also have existed previously in India?"

Because in some remote corners of India, untouched by the spark of later inventions indigenous or otherwise, some old antiquated system is still in use, it does not follow that no improvements were effected later by Indians. India is a vast continent and it is no wonder that an invention or discovery made in one place has not yet penetrated some of the remote corners. Witness, even at the present moment, how a large part of India in remote villages is still a stranger to the civilization in towns. In India, we can see not one homogeneous civilization but a series of different levels of civilization belonging to different periods in the unfortunate checkered history of India, and to say arbitrarily that some one of these alone is a representative of ancient Hindu civilization or intellectual attainment is, of course, unfair.

Another reason trotted out against the Indian theory is Mr. Kaye's conviction that there was never a school of Indian Mathematics. This reminds one of how a distinguished British Mathematician described in 1816 in the *Encyclopædia Britannica* (Art. Arithmetic) the *Līlavāti* as 'a short and meagre performance headed with silly preamble and colloquy of the Gods'. Colebrooke laments the negligence of the author, his want of research and reliance upon obsolete authorities and antiquated disquisitions. But Mr. Kaye cannot be accused of any of these defects but rank prejudice which has unfortunately blinded him to the true perspective of facts. He was led to this valuable opinion about Indian Mathematics apparently by the fact pointed out by Chasles\* that Bhaskara and the commentators of Brahmagupta were not competent enough to appreciate an important theorem of Brahmagupta. This fact again has led him to another logical conclusion that Brahmagupta himself was of the same type as his successors.

One of the important evidences for the Indian origin of the decimal notation is the Bakshali manuscript which contains one of the most explicit references to the Indian numerals. Dr. Hoernle's arguments in favour of the antiquity of this manuscript are freely criticized by our critic as a vicious circle, and we beg to point out how our learned critic himself falls into

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\* Though Chasles' authority is relied on in this instance, his evidence is considered untrustworthy when he attributes to Brahmagupta the formula for the sides of a rational right-angled triangle.

another vicious circle which in effect involves the following untrue and improbable assumptions :—

- (1) That Indian arithmetic and algebra are entirely of foreign origin.
- (2) That the Hindus got their elements of arithmetic undoubtedly from Diophantus and also to some extent from the Chinese and the Arabs.
- (3) That the principle of position-value was unknown in India till about the twelfth century and hence the *Bakhshali* arithmetic should belong to a period later than the twelfth century.

Having thus disposed of many of the arguments in favour of the Indian theory as being baseless, Mr. Kaye doubts whether the Arabs really owe anything to the Hindus. In a recent book 'Arabic Thought and its Place in History' by De Lacy O'Leary, D.D. (Trubner's Oriental Series, New York, 1922), we read : "About 156 A.H., an Indian traveller brought to Bagdad a treatise on arithmetic and another on astronomy : the astronomical treatise was the *Siddhanta* which came to be known to the Arabic writers as the *Sindhind*, . . . . . it opened up a new interest in astronomical studies ! . . . . . The Indian work on arithmetic was even more important as by its means the Indian numerals were introduced, to be passed on in due course, as 'Arabic' numerals and this decimal system of numbering has made possible an extension of arithmetical processes and indeed of mathematics generally which would have been difficult with any of the older and more cumbersome systems." Mr. Kaye doubts the veracity of such statements as the above, which, according to him, are based only on the authority of Colebrooke. Indeed he proclaims that Mohammed Ben Musa's mathematical work (which inspired Leonardo's treatises of the thirteenth century) was not based on Hindu originals and ridicules the poor translator of Musa's *Algebra* for quoting parallels from *Lilavati* (a later work than Musa's) for the ratio of the circumference of a circle to its diameter. He hints mischievously that F. Rosen might be one of those who believed that the circle could be exactly squared, because he had not given any credit to the Arabic comment (in the margin of Musa's *Algebra*) which ran 'they (the ratios corresponding to  $\pi$ ) are approximations and not exact truths ; for God alone knows what the exact truth is.' Mr. Kaye calls this a very brilliant exposition of the case and wants to give credit to the Arabic annotator for noting the irrationality of  $\pi$  (which, as we know, is a very recent discovery). It is probable that the above Arabic exposition was suggested by the Hindu value  $\sqrt{10}$  (for  $\pi$ ) which, of course, cannot be exactly evaluated.

Whether Rosen argued correctly or not, there is no doubt about the Hindu origin of Musa's text; for, how else could Musa have got the values  $\sqrt{10}$  and  $\frac{62832}{20000}$  (of  $\pi$ ) just in the form in which they occur in Indian Mathematical works (vide Prof. Mitra's article 'The Ancient Hindu Knowledge of Mathematics', *Modern Review* (Vol. XIX, 1916) pp. 638, 639). Because Rosen, not being aware of Aryabhata's text, could not quote Aryabhata's value in support of his Indian theory and took the value from *Lilavati*, in Mr. Kaye's opinion, the entire theory falls to the ground. Mr. Kaye says 'It is not necessary here to take into account the value given by Aryabhata, as Brahmagupta on whose work that of M. Ibn Musa is said to be based, did not give it.' The point at issue lies between M. Ibn Musa, Brahmagupta and Bhaskara. For Mr. Kaye's purposes, if an upholder of the Indian theory makes a mistake or slip in one place, the whole theory becomes vitiated thereby, and unreliable.\*

Thus, he mercilessly attacks the arguments of the early orientalists who were not in full possession of facts.

If Mr. Kaye could scent the contents of the lost works of Diophantus (vide p. 15, *Indian Mathematics*) in Brahmagupta's text, why should he not also with equal reason trace the contents (not traceable directly to Brahmagupta) of M. Ibn Musa's work to some lost Indian work prior to Brahmagupta? We know, for certain, on Brahmagupta's authority that the old text of Brahmasiddhanta had become very rare with many parts missing owing to lapse of time :

ब्रह्मोक्तं ग्रहगणितं महता कालेन यत् स्थयीभूतं ।

This constant reference to previous lost or nearly lost works in nearly every one of the extant early Indian works is entirely ignored by Mr. Kaye who makes such a fuss of the lost works of Diophantus.

Enough has been said in the previous pages to expose the bias and one-sidedness of Mr. Kaye's arguments and the methods adopted by him to support his creed. The way in which he rejects evidences and browbeats authorities favouring the opposite faith by exaggerating their weaknesses and foibles, his concoction of circumstantial evidences on imaginary grounds to strengthen his theory that everything mathematical is of Greek origin—these are all quite characteristic of the author. To do him justice, however, it must be said that he is one of those who cannot help believing that all culture, science and civilization had their origin in Greece. In the *Journal Asiatique*

\* Another instance of this trick of dealing with authorities, which occurs in his *Indian Mathematics*, p. 31, is quoted below :—

According to M. Nau, the Indian figures were known in Syria in A.D. 622; but his authority makes such erroneous statements about 'Indian' astronomy that we have no faith in what he says about other 'Indian' matters,

M. F. Nau mentions how a distinguished scholar of Nisibus, belonging to the seventh century, hurt by the arrogance of certain Greek scholars who looked down on the Syrians, made the remark which is as true to-day as it was more than a thousand years ago.

'Science is universal and is accessible to any nation or to any individual who takes the pains to search for it. It is not, therefore, a monopoly of the Greeks, but is international. . . . .

If those who believe, because they speak Greek, that they have reached the limits of science should know these things (that is, the Indian invention of the numerals)\* they would be convinced that there are also others (*viz.*, the Hindus)\* who know something.'

In his *History of Mathematics*, F. Cajori mentions two other writers, Carrade Vau and Nikol Bubnov advancing arguments tending to disprove the Hindu origin of our numerals. But none of these arguments is sufficiently weighty to decide the question one way or the other.

#### Conclusion.

As the late Sir Asutosh Mukherjee has pointed out, our knowledge of early Indian mathematics is somewhat limited and fragmentary. 'There is no exhaustive collection of Sanskrit manuscripts on astronomy and arithmetic and the works which have been published or rendered into English form a very small proportion of what is known to have existed at one time. Under such circumstances, it is somewhat difficult to make a definite pronouncement on the subject of the indebtedness of Indian mathematics (in particular, of Indian notation)\* to foreign sources.' Until new evidence of great weight can be submitted in support of the non-Indian theory, we have to believe from the evidence now available in the Hindu origin of the numerals or keep our minds open and await further important evidence in support of either theory.

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\* The statement within brackets is explanatory and inserted by the present writer to make the context intelligible.



## MUGHAL LAND REVENUE SYSTEM.

BY L. L. SUNDARA RAM, ESQ., M.A., F.R.E.S.

(Continued from Vol. XIX, No. 1.)

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### Akbar's Land Revenue System.

NO sovereign in mediæval India is so prominent as Akbar in the estimation of the student of history. A versatile genius endowed with a rich measure of administrative capacity, Akbar stands out single among sovereigns, and is famous for his land revenue system. Unlike other emperors of India, he was conscious that he was the father of his subjects, and such a policy as that of Munro that "we have only to guard the ryots from oppression and they will create the revenue for us" was constantly before his mind. Hence is to be expected from him a system of government designed for the welfare of the subjects, and he did actually bequeath one to later sovereigns. Amidst the confusing tumult of mediæval India he made an orderly and beneficial government feasible, and this accounts for his fame and success as a great ruler in the mediæval world.

Akbar's land revenue system for which he is so famous is no innovation, nor is it an invention. His indebtedness to the sovereigns that had gone before him is immense, but this does not in any way diminish the fame of Akbar. He followed the policy of Sher Shah with greater precision and correctness, and then extended it to the various provinces of the country. The best feature of Akbar's policy is its deference to conventions inaugurated by former sovereigns. The *Ain* states in its instructions to the *Amilguzar*<sup>1</sup> as regards the collection of revenue: "Let him see that no *Jizia* be collected, and whatever taxes former monarchs thought proper to remit, do continue to be excused."

The objects of Akbar to eradicate the evils innate in the existing order of things resolve themselves under three heads: correct measurement of the land under cultivation, ascertaining of the produce per *Biga* of land, and the fixation of the state's dues that each *Biga* ought to pay coupled with the rate of commutation in money. The legislation of Akbar as regards the land revenue system was directed towards the realization of these objects.

Besides for political purposes, in order to estimate the exact amount of revenue of the empire, Akbar parcelled his empire into fifteen *Subahs*, one hundred and eighty-seven *Sarkars*, and three thousand three hundred and sixty-seven *Mahals*; or rather, his empire consisted of so many divisions and

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1. *Ain-i-Akbari*, p. 265.

sub-divisions.<sup>1</sup> Then, a *Settlement* was ordered to be made and a standardization of units of measurement effected. First, what was known as the *Ilahi Guz* was made a definite unit of measurement. It consisted of forty-one fingers and its modern equivalent varies from twenty-nine to thirty-two inches. Here it is quite informing to note that sovereigns before Akbar, like Sher Shah, used a sort of definite *Guz* for purposes of mensuration and the *Ain* traces the origin of the *Guz* to Sultan Sikandar Lodi.<sup>2</sup> The standardization of the *Guz* gave a definite unit of measurement, brushed away all kinds of vagueness about the actual extent of the land, while the great scope for extortion on the part of the officials of the state was thus removed. Akbar also reformed the *Tenab* which is a chain of measurement consisting of sixty *Ilahi Guz*. The *Tenab* which was in use throughout Hindustan before the time of Akbar was made up of rope which left large scope for injustice being done to the ryots since it was subject to variations of length owing to dryness or humidity in the atmosphere. Akbar ordered that the *Tenab* be made of pieces of bamboos joined together by iron rings, which guaranteed the integrity of the chain throughout the year. The third change that Akbar effected was the definite measurement given to the *Biga*. It consisted of three thousand six hundred square *Ilahi Guz* and corresponds in modern measurement of something more than half an acre. Several *Bigas* went to make a *Mahal* or *Purganah* and several *Purganahs* which followed the same code were grouped into *Dasturs*. The *Purganah* answers to the lordships of hundred towns in the revenue divisions of Manu.

After obtaining the correct measurement of land, Akbar next turned to the ascertainment of the amount of produce per *Biga* and the state's share in it. For the purpose of making a comparative estimate of the produce of lands, Akbar divided them into four kinds and fixed a different revenue to be paid by each. *Polej* is the ideal and the best sort of land throughout the empire which was cultivated always and was never allowed to lie fallow. *Perowty* is the land that was kept out of cultivation for a short period in order to recoup its lost vigour. *Checher* is a kind of land allowed to lie fallow for three or four years and then resumed under cultivation. *Bunjer* is the worst kind of land that was left out of cultivation for five years or upwards.

*Polej* and *Perowty* lands were divided for purposes of assessment into three sorts, viz., good, middling and bad. The produce of a *Biga* of each sort of land was collected and the *Mahsul* or the average of the aggregate produce of the three kinds of land was calculated and was deemed as the average produce of a *Biga* of land. The state's share was claimed as one-third of

1. According to my computation.

2. *Ain-i-Akhari*, p. 243.

the *Mahsul*. *Perowty* land when cultivated paid the same revenue as the *Polej*. To give an illustration with actual figures<sup>1</sup> :—

<i>Common Rice.</i>	Best sort of <i>Polej</i> .		Middling sort.		Worst sort.		Aggregate produce of the 3 <i>Bigns</i> .		<i>Mahsul</i> .		<i>One-third of the Mahsul, i.e., the state's share</i>	
	Md.	Sr.	Md.	Sr.	Md.	Sr.	Md.	Sr.	Md.	Sr.	Md.	Sr.
	17	0	12	20	9	15	38	35	12	38 $\frac{3}{8}$	4	13

In the case of *Checher* lands which suffered either from rain or from inundations there was a graduation of the state's demand of revenue for a period of five years when it paid equally as the *Polej* land. Nor were *Bunjer* lands totally neglected. An incentive was given to cultivators for their cultivation in the shape of the exceptionally small proportion of the produce taken by the state, coupled with its indulgence in a lenient way of collection which varied with circumstances. Above all, the peasant was given the option of paying either in cash or in kind whichever was profitable or convenient to him. It is worth while for us to remember the difference between the classification of lands made by the British administrators of the present day and that of the Mughal emperors who have gone before them. According to an eminent Civil Servant of the Government of India<sup>2</sup>: "Modern 'settlement officers' usually prefer a classification based on either the natural or the artificial qualities of the soil, and divide the land into classes of clay, loam, irrigated, unirrigated, and so forth. Todar Mal and Akbar took no account of soils, whether natural or artificial, and based their classification on the continuity or the discontinuity of cultivation."

Having ascertained the extent of land under cultivation by means of *Paimaish* or measurement, and having determined the amount of produce per *Biga*, Akbar next proceeded to fix the rate of assessment. Annual returns of revenue were usually made for the different provinces together with the prices prevailing, for the guidance of assessment. And a special collection of prices and revenues was ordered to be made from the sixth to the twenty-fourth regnal years, i.e., from A.D. 1561 to A.D. 1579, both years inclusive. Having found the viziership of Asaf Khan was attended by abuses such as the granting of *Tumkhas* or privileges for collecting revenue on behalf of the state for commission,—“levied partially, according to the particular views of corrupt and self-interested people”, as the *Ain* puts it,<sup>3</sup>

1. The figures are those given by the *Ain-i-Akbari*, p. 246.

2. Vincent A. Smith, *Akbar*, p. 374.

3. *Ain*, p. 251.

Akbar ordered a *Settlement* to be made and entrusted it to the joint management of Todar Mal and Muzaffar Khan Turbati. The empire reaching its greatest limits, the procuring of current prices was found to be attended with difficulties; annual settlements were complained of by the ryots to be exorbitant; and those who had *Tumkhas* were wont to complain of uncollected balances. To avoid inconveniences in collecting prices and settlements of revenues for the previous years, fixing demand-rates annually at the headquarters, and to satisfy the people with stating a definite amount of revenue to be paid, Akbar ordered that a *settlement* should be concluded for the past ten years. An aggregate of the rates of revenues from A.D. 1570—1579 was made and the decennial average was fixed as the state demand of revenue. Henceforwards, the collections were made with certainty and the people were satisfied, so goes the statement of the official historian of Akbar's reign.<sup>1</sup>

Let us now turn to a critical examination of the merits and demerits of the decennial settlement of Akbar. The preparation of current prices and the determining of the rates of collection were, as we have seen above, attended with great difficulties.<sup>2</sup> The assessment was unquestionably severe since the machinery created to collate the data necessary for fixing the rate and collecting the revenue was to a great extent new, and the *settlement* searching and drastic. Badauni's impressions about the land revenue system of the Mughals may be quoted with profit. Writing of the settlement under consideration, Badauni observes: "In this year<sup>3</sup> an order was promulgated for improving the cultivation of the country and for bettering the condition of the ryots (peasants). All the *Parganas* (fiscal unions) of the country, whether dry or irrigated, in towns or hills, deserts or jungles, by rivers or reservoirs or wells, were to be measured, and every piece of land large enough to produce when cultivated one crore of *Tankas* was to be divided off and placed under the charge of an officer called the *Crori*, selected for his trustworthiness and without regard to his acquaintance with the revenue officials; so that in three years' time all the uncultivated land might be brought under crops, and the treasury be replenished. The measurement was begun at Fathpur, and one crore was named Adampur, another Sethpur, and so on after prophets and patriarchs. Rules were laid down but were not properly observed, and much of the land was laid waste through the rapacity of the *Croris*; the peasants' wives and children were sold and dispersed, and everything went to confusion. But the *Croris* were brought to account by Raja Todar Mal and many pious men died from severe beatings, and the torture of rack and pincers. Indeed so

1. *Ain*, pp. 252-53.

2. *Ibid.*, p. 251.

3. A.D. 1574.

many died after long imprisonment that the executioner or headman was forestalled" [Badauni ii, 189]. This passage clearly brings out the truth of the statement that measures wise in their design often prove to be troublesome at the time of their inauguration and leave much room for abuses to creep into the system, since the peasants will not be in a position to comprehend their true nature, while greedy and rapacious officers exact much from them with impunity. Yet the system worked very well after a time when the peasants were accustomed to it as will be evident from the annals of later times.

The prolongation of the term of *settlement* mitigated an inherent evil in the system. Annual settlements mean uncertainty of the assessment to be paid by the peasant to the state which varied according to the nature and yield of produce year after year. This makes the peasant indisposed to cultivate richer lands since even though he receives a much greater yield by the cultivation of such land, he has to pay an increasingly greater amount of tax to the state. Thus the labours of the peasant for the better cultivation of the land will not be fully rewarded. Whereas, on account of the decennial settlement, Akbar fixed the amount due from the peasant to the Imperial Treasury, while the peasant was given the hope of enjoying a greater profit in case he extended and improved his cultivation.

We may now turn to the Government's share of produce under Akbar. Akbar took one-third of the *Mahsul* as indicated above. But the ideal rate of assessment in the Hindu period of Indian History is only one-sixth. Akbar was not unconscious of the excessive demands he was making when he demanded one-third of the produce as the rate of assessment. He reduced the *Jehat* or duties on manufactures to the extent of five per cent.<sup>1</sup> Even though the share of Government in the produce of the land was only one-sixth under Hindu sovereigns, there were several vexatious taxes, known as *quitrent* prevailing. The *Ain*<sup>2</sup> mentions that twenty-nine taxes were abolished by Akbar in order to give compensation to the peasant for the greater proportion of revenue demanded by the state. There is no direct evidence whether Akbar's orders for the abolishing of those cesses were carried out to the fullest extent. But this much is certain that the payment of the revenues was lenient, and remissions many. The instructions to the *Amilguzar* provide for a lenient way of the collection of revenue: "Let him agree with the husbandman to bring his rents himself at stated periods, that there may be no plea for employing intermediate mercenaries."<sup>3</sup> Besides, there is direct testimony that the system was lenient. "The husbandman has his choice to pay revenue either in ready money, or by *Kunkut* (estimation

1. *Ain-i-Akbari*, p. 247.

2. *Ibid.*, pp. 248-49.

3. *Ibid.*, p. 264.

of crop while it is standing) or by *Behawely* (division of produce collected after the harvest into barns)."<sup>1</sup> Again the *Ain*<sup>2</sup> states that in the case of Bengal the peasants "pay their annual rents in eight months by instalments" and bring the revenues themselves to the Treasury. Dr. Vincent A. Smith doubts<sup>3</sup> the extent to which remissions were granted. But there is evidence enough that remissions were usually granted when occasions demanded them. The Sikh tradition points out that Akbar remitted the land revenue of the Punjab at the intercession of Guru Arjan during the famine year 1595-96. There is the direct evidence of the *Ain* that the remission of taxes like the *Baj* and *Tungha* as regards Cashmir reduced the revenues to some extent. I quote the passage of the *Ain*:<sup>4</sup> "His Majesty granted a general remission of all *Baj* and *Tungha*, which deductions amounted to 67,824½ *Kherwars*, or 898,400 *Dams*; and for the further ease of the husbandman, the *Kherwar* was increased in value by five *Dams*." From this it is evident that twenty-two thousand four hundred and sixty rupees, tolerably big a sum for a single *Suba*, was remitted in the case of a single province as Cashmir; and further, enhancing the exchange value of a *Kherwar* by five *Dams* means a proportionate loss to the state while being a definite asset and advantage to the cultivator. This is enough evidence to assure us that remissions were granted when occasions required them. Incidentally, it can be seen that the currency policy of the Mughal empire played a material part in the relationship of the peasant to the state, and we will come to this later on.

As Wilton Oldham observes "Akbar's revenue system was ryotwaree" where "the actual cultivators of the soil were the persons responsible for the annual payment of the fixed revenue," and there is the direct evidence of the *Ain* that the *Amilguzar* must "not entrust the principal men of the village with making the estimate of *Kunkut*,.....but.....transact his business with each husbandman separately,"<sup>5</sup> and hence there is no farming of any branch of revenue. Another feature about Akbar's land policy is the gradual resumption of *Jagirs* into *Khalsa* or crown-lands as far as possible, and the payments of salaries were made in money only. Dr. Vincent Smith says that Akbar never recognized the *Zemindar*, but the statement is subject to qualification. No doubt Akbar tried to avoid the *Zemindar* as far as possible. The instructions to the *Faujdar* require of him a vigilant watch against the *Zemindars* and other confederations.<sup>6</sup> Besides there are thirteen *Zemindars* mentioned in the *Suba* of Berar<sup>7</sup> and in the case of Multan the "*Zemindar* takes from the merchant a duty of 10 *Dams* upon

1. *Ain*, p. 251.      2. *Ibid.*, p. 302.

5. *Ibid.*, p. 263. (*Italics mine.*)

3. *Akbar the Great Mogul*, p. 379.

6. *Ibid.*, p. 257.

4. p. 442.  
7. *Ibid.*, pp. 346-49.



every man's load, and he also pays to the state a rupee for every eighteen maunds of salt that he transports."<sup>1</sup> Besides Akbar allowed grants of land for purposes of *Seyurghal*.<sup>2</sup> Hence we may conclude that the Zemindar was prevalent in the time of Akbar, only occasionally in the outlying *Subas*, and that, unlike the extortionate powers enjoyed by the later Zemindars, these were not totally absolute under him. At least, it may definitely be assumed that the idea of Zemindari tenure is under a specific discount.

### Raja Todar Mal.

Among the courtiers that surrounded the person of Akbar no name is better remembered than that of Raja Todar Mal. Abul Fazl may have been the greatest genius of the time; Shaik Faizi may have been a poet of the first magnitude; Tansen may have been the best musician available; Raja Birbal may have been the most intimate friend by the side of Akbar; Raja Man Singh may have been the best warrior to count among a host of others; but Raja Todar Mal is most prominent in this list as a genius endowed with the skill of a benevolent statesman and a cautious revenue administrator.

Raja Todar Mal served under Feroz Shah, as has already been pointed out, and gained his first experiences as a revenue administrator under his ægis. Having entered the service of Akbar he was favoured with the grant of a *Mansab* of four thousand,<sup>3</sup> and thenceforward he put all his administrative capacities at the disposal of Akbar. But for him we may reasonably say it would have been difficult, if not impossible, for Akbar to hand down to posterity such a system of Revenue Administration as the one that he actually evolved.

The character of a person always colours his actions. More true is it in the case of a revenue expert like Todar Mal, and on account of this his policy takes altogether a different shape from the one which he actually gave it. In his *Akbarnamah* Abul Fazl "describes him as entirely devoid of avarice and quite sincere, but of a malicious and vindictive temper,"<sup>4</sup> and the latter half of this quotation is corroborated by the statement of Badauni which has been just cited. Hence, the harshness of his system though benevolent in nature.<sup>5</sup>

The constructive revenue system of Todar Mal has two aims in its view: the increase of revenue ostensibly, of course, not by extortion but by the increase of cultivation and the security of the peasant. The desires of that famous finance minister were given the opportunity of being translated into concrete measures when he was first appointed Governor of Gujarat in

1. *Ain-i-Akbari*, p. 397.

2. *Ibid.*, p. 186.

3. *Ibid.*, p. 164.

4. Cf. Elphinstone: *History*, p. 531.

5. Cf. *Ain-i-Akbari*, p. 26—"His Obstinate Despotism."



1574. Here he effected some of his first reforms. He restored to local jurisdiction some of the districts which had been recently conquered; a systematic measurement of land was made as a preliminary to settlement; the assessment was determined with reference to the area cultivated and the nature of the crop grown; and in certain provinces the Government realized their dues either by *Kheyt Buttiey* or by *Lang Buttiey*, i.e., either by the division of fields between the Government and the agriculturists while the crops are standing or by actual division of heaped-up corn. But it is certain that the revenue of the state was to some extent reduced.

Todar Mal anticipated his later settlement while he was introducing reforms in Gujarat. He was given the necessary opportunity for the working out of his reforms on a large scale when he was appointed vazier in conjunction with Muzaffar Khan Turbati in the fifteenth regnal year, i.e., in 1570. Ten imperial *Qanungos* were appointed to collect the accounts of the provincial *Qanungos* and a new *Zumma* was formed in contradistinction to the corrupt one in vogue under Asaf Khan, the preceding vazier,<sup>1</sup> at the headquarters. Vincent Smith says,<sup>2</sup> "the amount of demand was somewhat less than in former years, but the discrepancy between the estimates and the actual receipts was diminished." The later part of his statement is subject to qualification. The *Ain* says,<sup>3</sup> "this settlement is somewhat less than the former one (i.e., of Asaf Khan); however, there had hitherto been a wide difference between the settlements and the receipts." The reason for this is not far to seek; and the passage quoted from Badauni elucidates the doubt. The searching nature of the system might have resulted in the desertion of land by the ryots, while several abuses might have crept into the system at the time of its inception. Later on, there is no room for doubting, the system worked fairly well. The statement that the system worked fairly well is corroborated by the fact that the system was adopted by Ibrahim Adil Shah II of Bijapur a contemporary of Todar Mal. The testimony of Meadows Taylor who has had enough local knowledge may be quoted: "The land settlements of the provinces of his kingdom, many of which are still extant among the district records, show an admirable and efficient system of registration of property and its valuation. In this respect the system of Todar Mal introduced by the Emperor Akbar seems to have been followed with the necessary local modifications."<sup>4</sup>

#### New Official Machinery.

We may now turn to the officialdom which Akbar created in his bureaucratic system of government designed for revenue purposes. *Sipah-*

1. *Ain*, p. 251.

2. *Akbar the Great Mogul*, p. 370.

3. *Ain-i-Akbari*, p. 252.

4. Meadows Taylor as quoted by Smith: *Oxford History of India*, p. 296.

*Salar* is the supreme head of military and revenue affairs of a *Suba*. As the *Ain* puts it,<sup>1</sup> "he must constantly keep in view the happiness of the people, and never suffer himself to be negligent in business.....Considering his office to be that of a guardian, let him act with utmost caution." Whatever may have been the real state of affairs, the minute attention of Akbar for the people's welfare is clear from this passage. Next to the *Sipah-Salar* come the *Faujdar* and the *Amilguzar* who manage the military and revenue affairs of a district respectively.

It is curious and informing to note the order in which the *Ain* enumerates the officers and their duties. First there is the *Sipah-Salar*, and next to him come the *Faujdar*, the *Kotwal*, the *Amilguzar*, the *Tepukchi*, and the *Treasurer*. From the order of arrangement it is clear that importance was given first to the military and police officers inasmuch as their assistance was necessary for the latter three revenue officials pure and simple in the discharge of their duties.

Now, *Faujdar* is a divisional officer who was appointed to the charge of several *parganas*. He assisted the *Amilguzar* in the collection of the revenue and was to quash the confederations of rebellious zemindars. *Amilguzar* is an officer whose purpose is mainly the assessment and collection of revenue. The idealistic description of him by the *Ain*<sup>2</sup> is really deserving since he is the person who had supreme control over the peasant, and could be either extortionate or lenient.

Next to the *Faujdar* and *Amilguzar* come the *Putwari*, the *Qanungo*, the *Amin* and the *Karori*. "The *Putwari* is employed on the part of the husbandman to keep an account of his receipts and disbursements, and no village is without one of these."<sup>3</sup> The *Qanungo* literally means "expounder of law" or "customary rules". He is styled by the *Ain* as the "protector of the husbandman".<sup>4</sup> Being in possession of ancient documents some of the *Qanungo* families are veritable sources of trustworthy information. The *Amin* means "an umpire, an arbitrator or a trustee for others."<sup>5</sup> He is chiefly concerned with the striking of a compromise between the exorbitant demands of the state and the evasive replies of the husbandman. He is under the direct control of the *Amil*. The *Karori* or *Krori* is the actual collector of revenue. It is one of the peculiar words introduced into the nomenclature of state-craft by Akbar, and stood for the collector of a crore of *Dam* or two and a half lakhs of rupees. But later on the term was applied to collectors of revenue irrespective of the amount of revenue

1. *Ain-i-Akbari*, p. 253.

2. P. 261.

3. *Ibid.*, p. 247.

4. *Ibid.*

5. Jadunath Sarkar: *Mughal Administration* (Patna University Readership Lectures).

collected. It may be interesting to note that Akbar granted the *Suddu-i-Putwari* (or two per cent for the *Putwari*),<sup>1</sup> and that this commission was divided equally between the *Putwari* and the *Qanungo*, besides their actual salaries which ranged between rupees twenty and fifty according to their rank. Next in order comes the *Tepukchi*, an industrious and skilful accountant, on whom the *Amil* chiefly depends for trustworthy information. His duty is to despatch daily returns of the receipts and balances of every village to the *Amil* and keep the latter informed about any sudden calamity that might befall a village. Lastly comes the *Treasurer*, and the Treasury was kept at the residence of the principal officer in the district. A strict watch was kept over the treasury and the treasurer was ordered to accept the coins of former reigns which possessed the necessary weight as bullion, while disbursements were to be made with the express approbation of the *Diwan*.

A salient fact for us to note is the attempt on the part of Akbar to gain thoroughness in matters of revenue collection. The daily returns of the *Tepukchi*,<sup>2</sup> the weekly returns of the *Amilguzar*<sup>3</sup> and the counter-signature of the *Amil* on the memorandum of the *Treasurer*<sup>4</sup> go to support the statement.

We may now turn to the different means of realizing the state's proportion of the produce and those systems legalized by Akbar. We may broadly divide the various systems of revenue collection into three heads: the *Ghallabakhsh*, the *Zabti* and the *Nasaq* systems. Let us now consider the nature of the separate systems and their merits and demerits.

The *Ghallabakhsh* is the original Indian system where an actual division of crop was made between the cultivator and the state. Its equivalent in modern phraseology is meteyarship. This process of realizing the state's proportion of produce is sub-divided by the *Ain* into four kinds.<sup>5</sup> They are: the *Kunkut* or estimation of crop by conjecture; the *Buttiy* or the *Bhaweley* where the grain heaped up in barns after the harvest was divided according to agreement; the *Kheyti Buttiy* where an actual division of land was effected as soon as the field was sown; and the *Liang Buttiy* where the produce collected into heaps was proportionately divided. The first two methods are liable to imposition. But this system of crop-division is subject to many difficulties. The revenue under such a system will be vacillating on account of its dependence upon the seasons, the accuracy of the officials, and the area of land sown and the yield per unit. But it is evident from the *Ain* that it was prevalent to some extent under

1. *Ain-i-Akhari*, p. 247.

2. *Ibid.*, p. 267.

3. *Ibid.*, p. 264.

4. *Ibid.*, p. 269.

5. *Ibid.*, pp. 262-63.

Akbar. It was to be seen in Cashmir where the text reads:<sup>1</sup> "the crops shall be equally divided between the husbandman and the state"; in Tatta where the "husbandman divides his crops with the government"<sup>2</sup>; besides many other places. Crop division was also resorted to in case of *Bunjer* lands.<sup>3</sup> It may also be noted here that commutation in money was permitted when the peasant desired. It may here be observed that this ancient Hindu mode of realizing state revenue given wider currency to by the Mughals was in part resorted to by the East India Company during the eighteenth and the nineteenth centuries.

The *Zabti* system is the alternate system chiefly used by Akbar in order to eliminate the uncertainties and difficulties inherent in the system of crop-division. It is an equitable, though not lenient, system of revenue collection. Its chief characteristic is the fixed rate of assessment determined according to the nature of crop and the payments of assessment in previous years. It gave definiteness to the state's dues from a cultivator, while to the latter it gave ease and scope for improvement. It is otherwise known as the *Regulation System*. The "questionable statements regarding the *Zabti* system" as enumerated by Mr. Moreland<sup>4</sup> are the term of the settlement, the distinction between grain-paying and cash-paying crops, and the post of *Karori*. They are too controversial but the possible facts are that a decennial settlement was made by Akbar,<sup>5</sup> that there was a distinction between grain-paying and cash-paying crops<sup>6</sup> and that the post of the *Karori*, which was treated as an integral part of Akbar's revenue system, disappeared very quickly, as is evident from their not being mentioned by the *Ain* and the miserable lot of the *Karoris* as is apparent from the description of Badauni might have resulted in the general abhorrence of the people of that post.

*Nasaq* or summary assessment is the third and last kind of revenue collection. It is a system quite familiar to the writer of the *Ain* where he makes direct mention of it as regards the revenue collection of Bengal<sup>7</sup> and Guzarat<sup>8</sup> besides several other places. That it was not an innovation of Akbar is beyond all doubt since an Emperor who is mainly interested in the welfare of the people could not have resorted to such a sort of assessment; and if it was prevalent to some extent under his régime it was only due to considerations of expediency, since many parts of his empire being newly conquered were unruly and troublesome. For example, Bengal always

1. *Ain-i-Akbari*, p. 422.

2. *Ibid.*, p. 402.

3. *Ibid.*, p. 250.

4. *Journal of the Royal Asiatic Society*, January 1918, pp. 25-27.

5. *Cf. Ain.*, p. 252.

6. *Cf. Ibid.*, p. 246, where turmeric, cucumber, hemp, and other crops were "ordered to be paid in money".

7. *Ibid.* p. 302.

8. *Ibid.*, p. 350.

proved to be a scorpion in the side of the Mughal emperors, while Guzarat was recently conquered. The essential nature of the *Nasag* system is one of contract and hence odious to the *Zabti* system with its necessary antecedents of *Paimaish* or measurement of land, and equitable assessment. It is an agreement rather than a detailed assessment, a *Zemindari* rather than a *ryotwari* system, a mutual contract rather than a detailed examination of the yield of crop. It is a common and convenient method of assessment and was at times resorted to on account of it being a simpler and cheaper mode of revenue collection than the *Zabti* system, especially in newly conquered *Subas*.

#### Administration of Individual Subas.

We may now pause for a moment and consider the general nature of revenue collection under Akbar. Even though he tolerated crop-division and the *Nasag* system of assessment, the ideal and usual form was the *Zabti* system based on an actual measurement of land, the nature of the crop grown and the equitable rate of assessment. A consideration of the forms of revenue collection in the various *Subas* elucidates the statement. I now proceed to describe the modes of collection in the fifteen *Subas* of Akbar.<sup>1</sup>

*Agra*:—The *Zabti* system of assessment was largely in vogue with slight exceptions as in the case of *Seyurghal* revenue. The *Ain* states that eleven *Sarkars* out of thirteen pay revenue in the case of the lands granted for purposes of *Seyurghal*. For the *Mahal* of Baground no figures were given.

*Ajmir*:—It was not assessed uniformly. *Ain* states "The revenue is in general a seventh or an eighth of the produce of the harvest, little being paid in ready money" (pp. 367-68). Of the seven *Sarkars* comprising the *Suba* areas were not given for Jodhpur and Sirohi, while in *Sarkar* Bikaner all the eleven *Mahals* were left blank while a round sum was given as the revenue of the *parganas*. From this it is evident that to some extent either the *Zemindari* or the *Nasag* form of revenue collection was prevalent. Four out of seven *Sarkars* paid *Seyurghal*.

*Allahabad*:—Mostly the *Zabti* system. But the whole of *Sarkar* *Bhathkhura* with its thirty-nine *Mahals* are not given any figures, neither are there given the names of the *Mahals*. Besides seven *Mahals* were omitted, while two *Mahals* were grouped in one case. Hence it is evident that the *Naqdi* system existed and the revenue was paid through *Zemindars*. Nine provinces out of ten paid *Seyurghal*.

*Behar*:—The *Zabti* system is generally prevalent. "It is not customary in Behar to divide the crops. The husbandman brings the rents himself" (p. 317). One *Mahal* is missing in the *Sarkar* of Behar while the *Sarkar* *Monghyr* was not given any measurement. Anyhow the *Ain* mentions

1. The page numbers are those of the *Ain*.

"unmeasured land consisting of sixty-one *parganas*" (p. 319); while one *Sarkar* (Behar) out of seven mentions revenue from *Seyurghal*. From this it is probable that some form or other of *Naqdi* system was prevalent in the *Suba*.

*Bengal*:—The prevailing system was *Nasaq*. The *Ain* says "it not being customary in this *Suba* for husbandman and the Government to divide the crop.....the produce of the land was determined by *Nasaq*" (p. 302). A peculiar feature to note about the *Suba* of Bengal is that its *Tukseem Jumma* does not mention the area of even a single *Sarkar*, Jennetabad were not given any figures, while the *Mahals* of the entire *Sarkars* of Kullengdundpaut and Raje Mahendreh (Rajahmundry?) were not enumerated. Another point which supports the statement that *Nasaq* was prevalent here universally is that no mention of *Seyurghal* is made as it is characteristic of the cases of *Subas* where the *Zabti* system was prevalent.

*Berar*:—In general *Nasaq* and the *Ain* makes mention of thirteen *Zemindars* besides, perhaps, many others (pp. 346-49). Besides, Manikdrug is an independent territory (p. 348). Eight *parganas* in *Sarkar* Kullern passed into the hands of an independent *Zemindar*, while twenty-two *parganas* in *Sarkar* Kherla were independent under *Zemindars* (p. 349). Eleven *Mahals* are missing while eighteen *Mahals* give blank returns. Four out of seven *Sarkars* pay *Seyurghal*. No extent of land is given.

*Delhi*:—Prevailingly *Zabti*, but there are traces of the *Zemindari* form of land tenure. For example, *Sarkar* Reytwari gives no aggregate revenue statement while *Sarkar* Kumaun, evidently a hilly tract, omits the returns for five *Mahals* and remarks "no account is made of the other five *parganas*" (p. 529). The same *Sarkar* does not mention its area. Seven out of eight *Sarkars* pay *Seyurghal*.

*Guzarat*:—Being not homogeneous, several forms of revenue collection were prevalent. But the *Ain* assures us that *Nasaq* was prevalent for the most part, and that *Paimaish* was seldom resorted to. Here it should be noted that Surat paid by estimate (p. 368). Two *Mahals* are missing while two more were not mentioned in *Sarkar* Surat. The *Mahal* Dhamnud in *Sarkar* Kodehra gives no returns. A peculiar feature about *Sarkar* Surat is that port duties were not paid in the usual *Dam* but in *Mahmudi*. Seven out of nine *Sarkars* mention *Seyurghal*.

*Kabur*:—Mainly crop-division. The various systems were given only for *Sarkars* Cashmir, Kandahar and Kabul. In Cashmir crop-division by estimate was prevalent, it being not customary to have recourse to measurement or to receive money (p. 422). Crops were equally divided between the state and the peasants. In Kandahar, "most kinds of grain were



computed in *Kherwars*", the *Kherwar* being an equivalent to forty Kandahari or ten Hindustani maunds. From the description of the revenue system prevalent in Kandahar it is evident that the demand of the state is abnormally high as compared with other provinces of Akbar. Though theoretically one-third marked the state's portion of the yield, two-thirds was demanded usually from the total produce of the land. The *Tukseem Jumma* of the *Suba* of Kabul does not mention the areas for any of the *Sarkars*, while as regards some *Sarkars* no amount of revenue was known as due. The *Sarkar* Kabul contains a certain amount of *Seyurghal* land while *Sarkar* Puckely does not mention the amount of revenue and the *Mahals* comprising it. As regards *Sarkars* Puckely, Swat, Deruneyun and Issakhyl they were expressly stated as hill tracts inhabited by unruly tribes. Hence the occupation of Imperial Government in those *Sarkars* was mainly military. Again in Kandahar there is a distinction between cereals and other crops, and the revenue was collected either by measurement or by contract (pp. 447-48).

*Khandesh*:—The *Ain* styles it as Dandes. No definite system of revenue collection is mentioned but the old system, which is obscure, might have been followed. A curious point to note is the payment of revenue in *Berary Tungahs* and this also shows that an old system was still pursued under Akbar. The *Berary Tungah* is equal to twenty-four *Dams*, and hence two *Tungahs* roughly go to make an *Ilahi Rupee*. The *Suba* of Khandesh was comprised of thirty-two *Mahals* out of which three were not mentioned, while their revenues were stated. The measurement of the *Suba* was not given.

*Lahore*:—Mostly *Zabti*. The *Zemindar* collects revenue from the merchant and pays a transport duty himself to the state (p. 397). Five *Mahals* are missing, while no returns were given to *Mahal* Jeffroth in *Sarkar* Retchnabad. Three "separate *parganas*" are mentioned without the extent of their areas. A point to note here is that the *Suba* was divided into *Duabehs* evidently the doabs between the five rivers. All the *Sarkar Duabehs* except the "separate *parganas*" mention *Seyurghal*.

*Malwa*:—The *Zabti* system was the rule. Anyhow the *Ain* mentions "the husbandmen here pay the revenues in gold mohurs and elephants" (p. 331), by which we hazard the suggestion that cash rates were prevalent. Ten *Mahals* are missing. Measurement was not given to three *Sarkars* while the aggregate revenues were not stated for two *Sarkars*. *Seyurghal* is mentioned in the case of eight *Sarkars* out of twelve.

*Multan*:—The system prevalent in this *Suba* was *Zabti*. One *Mahal* is missing. The *Suba* consists of eight *Duabehs*, two *Sarkars*, and two other



divisions stated as "separate *parganas*". *Sarkars* Multan and Deybalpur do not enumerate their constituent *Mahals*. All the divisions of this *Suba* mention the revenue of *Seyurghal*.

*Oudh*:—This *Suba* consists of five *Sarkars* and the system prevalent was *Zabti*. Three *Mahals* are missing. All the *Sarkars* mention *Seyurghal*.

*Tatta*:—Prevailing *Ghallabakhsh*, the system was described as one where "the husbandman divides his crops with Government, and is allowed to keep two-thirds" (p. 402). As is implied in the system of crop-division no area of the *Suba* and the various *Sarkars* is stated, since the system has nothing to do with measurement of lands. Two *Mahals* are missing while *Seyurghal* is not mentioned.

#### How the *Tukseem Jumma* was compiled.

Having examined in detail the various systems of land tenure prevalent in the different *Subas*, together with the peculiar features of each, we may now pause for a moment and analyse the principles according to which the *Tukseem Jumma* was compiled. A comprehensive understanding of those principles alone makes us assimilate the dumb figures and multitudinous statements relating to revenue returns that abound to a great extent in the *Ain*. The returns which indicate the yield of revenue from *Seyurghal* suggest that grants of land to individuals were prevalent in those areas. The state's revenue represented by round numbers suggests, presumably, that the *zemin-dari* form of land tenure was prevalent in those locations since absolute round figures cannot come out of a careful survey and an equitable rate of assessment with each individual. Statistics mentioning no extent of land may be taken as denoting the prevalence of crop-division since it has nothing to do with measurement but mainly depends upon the actual yield of crop; or may suggest the prevalence of *Nasaq* or summary assessment. In cases where no figures were given representing the amount of revenue due to the state, and no extent of territory mentioned, we may conclude the prevalence of the *Naqdi* form of collection of revenue. And where the extent of the land and the amount of the revenue were given, and the enumeration of the *Mahals* was complete—of course leaving a fair margin for cases where actual returns were difficult to get, we may name the prevailing system as *Zabti*.<sup>1</sup>

#### Summary.

To conclude the survey of Akbar's land revenue policy we may note the revenue of the state during his reign. Abul Fazl states it as "640 *Krors* of *Muraditankas*" or ten crores of rupees (64 *Muraditankas*=Re. 1), while Nizam-ud-din Ahammad, another fiscal authority, states the revenues were

1. These are the results which my researches have produced.

something less than ten crores of rupees.<sup>1</sup> When compared with the revenues of the later Mughals, especially under Aurangzib, when the highest water-mark of state revenues, thirty-eight and a half crores of rupees, was reached in 1697, we may conclude that Akbar's revenue was very small.

Under Akbar, the ideal form of revenue collection was the *Zabti* system. It was essentially ryotwar, and gave definiteness to the state's demands while securing ease to the peasant. This system was pushed as far as it was possible, of course, modulated according to the needs of local conditions. The prevalence of *Nasag* may be explained as a make-shift system of revenue collection in newly-conquered and rebellious provinces such as Khandesh, Kabul, Tatta, Bengal and Behar. The resumption of *Jagirs* into *Khalsa* was thorough to the extent that it was advisable and practicable. The zemindars though existing in Akbar's days were not absolute like those prevailing under the later Mughals but were merely people given a commission on state revenues for their effectual collection. The system was lenient beyond all doubt, and the peasant had the choice of paying either in cash or in kind as he thought convenient and profitable to himself. An attempt at perfection of the bureaucratic machinery was made and was to a great extent attended with success. Remissions were generally granted when unforeseen calamities befell a province, while several vexatious taxes on manufactures and other trading concerns were abolished or reduced; and the *Ain* states that twenty-nine taxes were declared illegal and abolished. Whatever may have been the effect of the orders of Akbar, whether they were fully carried out in practice or not, the fact remains that the lot of the peasant under Akbar was more happy than under the later Mughals.

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1. See Mr. Keene's paper in the *Journal of the Royal Asiatic Society*, 1887, p. 498.

## STUDIES IN BIRD-MYTHS, No. XXIV—ON A LUSHAI-KUKI ÆTIOLOGICAL MYTH ABOUT THE JUNGLE BABBLER.

BY PROF. SARATCHANDRA MITRA, M.A., B.L.

THE Lushai Kukis are a Mongoloid people who live in the rocky fastnesses of the hill-tracts to the east of Assam. The following interesting myth about the origin of eclipses is prevalent among these people. The Lushais believe that whenever an eclipse occurs, a ghostly being called by them the *Awk* devours the sun. It is for this reason that on the occasion of eclipses these people get very much excited and beat drums for the purpose of scaring away this being who devours the great luminary. They further assert that, on one occasion, the *Awk* swallowed the sun so completely that a great darkness overshadowed the world. This fearful time is called by them "*Thimzing*," i.e., "the gathering of the darkness", during which many terrible things occurred. Every animal killed in the course of hunting became resuscitated, dry wood regained its power of growth, even stones became endowed with life and put forth leaves. Consequently men had no fuel to burn. The most successful hunters who possessed large numbers of skulls and other bones as trophies of the chase were thus enabled to use these as fuel for their fires. As it was pitch dark men and animals could not see each other; and therefore tigers went about prowling and bit men, trees and stones.

It is in this time of "*Thimzing*," or "the gathering of the darkness", that a general transformation took place and men were metamorphosed into animals. Those men who were going joyfully to their jhum or hill-side cultivation were metamorphosed into "*Satbhai*, or laughing thrushes", as will be evident from their white heads which represent the turbans worn by those men and their cheery chatterings.<sup>1</sup>

[For the purpose of the subject-matter of this paper, I am not concerned with the other transformations that took place during the time of the "*Thimzing*".]

I must state here that in the foregoing account the "*Satbhais*" have been wrongly stated to be laughing thrushes. In a previous paper<sup>2</sup> I have already shown that these "*Satbhais*" are the birds which go by the name of the Jungle Babblers (*Crateropus Canorus*, Linn.). The name "*Satbhai*" is

1. Vide *The Lushai Kuki Clans*, by Lt.-Colonel J. Shakespeare, London. Macmillan & Co. Ltd., 1912, pp. 92-93.

2. Vide my article entitled 'Studies in Bird-Myths, No. X.—On a Probable Ætiological Myth about the Jungle Babbler' in *The Quarterly Journal of the Mythic Society of Bangalore*.

the Bengali synonym of these birds; whereas their Hindustani cognomen is "*Satbhaiya*", both of which names signify "*Seven Brothers*". This name alludes to their habit of associating together in flocks of *seven* (and, sometimes five). Sometimes they are also called "*Seven Sisters*".

[It will not be out of place to state here that a good deal of inappropriateness exists in this nomenclature of this bird. The first part of the name Jungle Babbler is quite inappropriate, *because it is found not only in jungles but also everywhere in the country-side*; whereas the second part of the name is singularly fit, *because this bird babbles with a vengeance*. This babbling cannot, by the slightest stretch of the imagination, be called *laughing*. Then again, the great naturalist Linnæus made a sad mistake when he called this bird the "*Tuneful Thrush*" (*Turdus Canorus*) because this bird never sings like the Huamei of China (*Trochalopteron Canorum*) which latter bird is also included under the same name.]<sup>1</sup>

This Lushai Kuki myth about the evolution of the Jungle Babbler illustrates, in a remarkable degree, a leading trait of the mind of the primitive man. It is a cardinal doctrine of the Philosophy of the Lower Culture that there is no distinction between man and beast, and that the 'savage mind is quite unconscious of the line of difference that exists between these two great divisions of the created beings. To the savage beasts sometimes talk like human beings, and human beings very readily become beasts. Traces of this savage belief still survive in modern folklore in the shape of the European belief in the *werewolf*, that is to say, of a human being who is a man by day time and a wolf during night, and in the Indian and Malayan belief in the *wertiger*.<sup>2</sup> Similarly Lushai Kukis appear to be possessed of the same belief in the interchangeability of man and beast, for, they have invented the myth to the effect that in the course of the darkness that followed the eclipse, the men were readily metamorphosed into Jungle Babblers.

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1. *Vide The Birds of Calcutta*, by Frank Finn, B.A., F.Z.S., M.B.O.U. Calcutta, Thacker Spink & Co., 1917, p. 19.

2. For a fuller discussion of this point *vide The Handbook of Folklore*, by C. S. Burne. London, Sidgwick & Jackson, Ltd., 1914, p. 40.

## STUDIES IN PLANT MYTHS, No. II—ON A BIRHOR ÆTIOLOGICAL MYTH ABOUT THE PINNATE LEAVES OF THE TAMARIND TREE.

BY PROF. SARAT CHANDRA MITRA, M.A., B.L.

THE tamarind tree [*Tamarindus indica* (order Leguminosæ)] is a large sized, usually evergreen, tree which attains an altitude of a hundred feet and a girth of fifteen feet or more and a spreading rounded crown. *It possesses pinnate leaves with ten to twenty pairs of leaflets about 0.5 in. long.* It is cultivated throughout India and Burma. It produces immense quantities of an acid fruit which is eaten now with rice or is used as a condiment in cooking vegetables, pulses, fish and the like. It is desiccated and preserved as a pickle in every household throughout Bengal. In medicine it is used as a laxative and anti-scorbutic. When it is mixed with water and sugar it forms a refrigerant drink. An infusion of its leaves is administered as a cooling drink in cases of dysentery. The kernel of its pips is used as a stomachic medicine. The wood is very tough but highly valued for cart wheels, mallets and sugar, oil and rice mills. Powdered and mixed with gum, the seeds form a strong cement.

It is a large and ornamental tree very useful for planting in avenues, as its leaves are perennial and its crown is spreading and rounded.

It is said to be indigenous in Abyssinia and Central Africa. It is largely planted along roads and avenues and in and around villages.<sup>1</sup>

The Birhors are a small Dravidian tribe which lives in different parts of the province of Chota Nagpur. They speak a language closely allied to Mundari. The name Birhor signifies "woodman or forester". They live a wild nomadic life among the hills and forests of Chota Nagpur. They wander about in small parties and earn a precarious livelihood by making string from the bark of the chop creeper (*Bauhinia scandens*). A few numbers of this aboriginal tribe have settled down among their more civilized neighbours and taken to agriculture as their mode of living. Those who live in the forests are very degraded and live in rude huts. In appearance they are the most degraded looking of the Kolarian tribes. They are very short-statured, black-complexioned and dirty-looking and some of them wear locks of matted

1. For the silvicultural uses of the tamarind tree, see *The Silviculture of Indian Trees*, by R. S. Troup, M.A., I.F.S., in three volumes, printed at the Clarendon Press, Oxford, 1921, Vol. II, p. 364.

For the economic uses of the tamarind tree, see *A Handbook of Indian Products*, by T. N. Mukherjee, Calcutta, 1883, p. 112.

hair. They do not use bows and arrows but employ small axes as their only weapon.

Their religion is a strange medley of Hindu and Kolarian ideas. As the result of their living in contact with the Hindus, they have absorbed into the body of their traditions and beliefs the whole Hindu legend about Rāma and Sita and have adapted the same according to their own ideas of living. This adaptation is so complete and thorough that it may be called the Birhor version of the *Rāmāyana*.

As they are the denizens of the hills and forests of Chota Nagpur, they constantly saw tamarind trees and were struck by the smallness of the pinnate leaves of this tree. The more thoughtful of the Birhors being ignorant of the laws of phytology were unable to account for the true causes which have led to the formation of the small pinnate leaves thereof. So the primitive Birhor myth-makers set about to invent a myth which they thought would not only inculcate a great moral lesson but also account for the origin of the small tamarind leaves. Accordingly they hit upon their own version of the legend about Rāma, Lakshmaṇa and Sita and utilized the fact of Rāma's filial piety and devotion to truth as the basis of this myth. Therefore they have fabricated the undermentioned ætiological myth about the origin of the small pinnate leaves of the tamarind tree:—

After king Dasaratha had exiled Rāma, Lakshmaṇa and Sita they all went to the forest where they lived in kūmbās or small huts made of the leaves and twigs of trees, just as the Uthlu Birhors do. On one occasion they constructed their kūmbās under a big and spreading tamarind tree which sheltered their huts from the rain and sun, for in those olden days the tamarind tree had large leaves. But Rāma told his brother Lakshmaṇa: "Oh brother Lakshmaṇa, our father has exiled us into the forest for bearing privations and hardships; but the large leaves of this tamarind tree protect us from the rain and thus prevent us from putting up with the hardship of being drenched by the rain water. So please shoot at the leaves of the tamarind tree with your bow and arrows." On hearing these words Lakshmaṇa shot at the large leaves which were thereby split up into ten to twenty pairs of leaflets which enabled the rain water to leak through their leaf huts and drench them. Since that time the leaves of the tamarind tree have become pinnate consisting of ten to twenty pairs of leaflets.<sup>1</sup>

It will be seen that this ætiological myth also sets forth in strong and lurid light, Rāma's great love of self-mortification and self-sacrifice.

1. For a full account of the Birhor version of the *Rāmāyana* vide *The Birhors*, by Rai Babadur Sarat Ch. Roy, M.A., M.L.C., Ranchi, 1923, p. 410.

## NOTES.

### Bana's Fort.

An Ancient Monument in Cochin State.

BY A. GOVINDA WARIAR, ESQ., B.A., B.L.

DURING the recent Easter Holidays a party of ten members including the writer explored some of the fastnesses of the Vellāni Hills in what is called the Paṇavaṭṭāni Range of the Cochin forests. The excursion, which was a trip of pleasure as well as of exploration, was a success.

On the eighth of April the party repaired from the Tānnikkudam valley to the foot of the Pullamkandam Hills forming part of the Vellāni, after traversing a distance of some six miles in about two hours and a half and passing alongside the remains of a few dolmens *en route*. A trying ascent of three to four miles brought the party within reach of the famous "Vellāni Pachcha". This is an irregular plateau of evergreens, the dense vegetation of which is known to have been never denuded by the forest fires. It is more than 1,500 feet above the plains. This Pachcha the writer would identify with the celebrated 'Marataka Pachcha' mentioned in that masterpiece of mediæval Malayalam literature called '*Chandrôtsavam*' incorrectly attributed to Maḥamangalam Nambutin of the seventeenth century A.D.

Reaching the Pachcha the party broke up into batches, the better to discover the ruins of the Vellāni fort, which was the object of the expedition. After an exciting search, the batches rejoined at one of the three ponds on three sides of the fort. These ponds were examined one after another and all but one were found dried up and almost levelled up with earth and boulders carried down by the mighty torrents from above.

A laborious ascent of 250 to 300 feet above these brought the party to the ramparts surrounding the dried-up moat of the hill fort so expectantly sought for. This fort, the construction of which is traditionally attributed to Bāṇa, stands on level ground and was certainly square in shape, though three sides are now somewhat irregular. The total length of the moat around comes to over 1,300 feet, its breadth to about forty-five feet and its depth at some places to fifteen feet filled as it is with mud and broken stones borne down from the granite walls enclosing this citadel of old. Traces of the walls are still extant as also of two entrances on two opposite sides, the connections with the ramparts around the moat being lost.

The site of the fort and the moat is now filled with a dense growth of trees, some four feet in girth. One gigantic old rotten tree that had once grown in the moat and is now fallen into it measures about nine feet in girth, and runs to a length of about eighty feet straight. Some of the rocks within the fort show traces of having been worked upon by human hand.



For their return the party had to strike out a new path for some distance and then to keep along the watercourses on the southern portion of the Range. After a steep descent—steeper than the comparatively easier morning ascent—through rocks and brambles, they emerged at last into the paddy fields below.

To the east of these patches of paddy cultivation and closely touching on the southern slopes of the Vellāni Hills better known as the Paṭṭikkād side of the Paṇavaṭṭāni mountains there lie the three sister hillocks of Umikkunnu (husk heap), Taviṭṭukkuṇṇu (bran heap) and Arikkuṇṇu (rice heap), being the remnants, according to tradition, of the preparations for the wedding of Usha, the daughter of Bāṇa. These hillocks were once well-wooded forests counting among them some of the most valuable types of timber but now depleted.

The party reached Paṭṭikkād on the Tṛchūr-Vāṇiampāra road at about 2-30 P.M. after having trudged for about twenty miles. They returned to Tṛchūr—eight miles west by south—*via* Pāṇanchēri, a village which closely touches on the Pāṇanchēri Hill at the southern end of the Paṇavaṭṭāni mountains. This is a village which, according to popular belief, is Bāṇanchēri, and appears to have been so named owing to its contiguity to the Bāṇan *cherivu* or slope of the hill leading to Bāṇa's fort already located.

The existence of such a fort with so commanding a position in the interior of such dense and inaccessible forests must be of considerable interest to students of research into pre-historic antiquities.

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## REVIEWS.

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### Speeches by His Highness the Maharaja of Mysore, 1902—27.

TWO VOLUMES. MYSORE GOVERNMENT PRESS.

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THE first volume of the Speeches by His Highness the Maharaja of Mysore relating to the period of his reign up to 1920 was printed at the Government Press, Bangalore, in 1921 and has already been noticed in these pages. Attention has also been drawn to the important speeches in the Sri Krishnaraja Silver Jubilee Souvenir published on the occasion of the celebration of the Silver Jubilee of the glorious reign of His Highness Sri Krishnaraja Wadiyar Bahadur, G.C.S.I., G.B.E., Maharaja of Mysore. His solicitude for the welfare of the subjects of the State will be apparent on every page of the two volumes of His Highness' speeches. The second volume covers the period 1921—1927 and comprises twenty-five speeches and addresses delivered up to 16th October 1927. It is printed on excellent feather-weight paper and the get-up does credit to the Mysore Branch Press where it was printed. The subjects referred to in the speeches cover all kinds of interest and every topic of importance connected with the growing prosperity of Mysore; and more. They bring out the living human touch with the well-being of His Highness' ever loyal, devoted and contented subjects. It is impossible to single out any one address more than any other. His Highness' observations on the importance of the improvement of domestic hygiene, his anxiety to afford relief to the poor and afflicted, his deep interest in the industrial development of Mysore may be referred to; likewise, his magnificent speech on the occasion when, as Chancellor of the Benares Hindu University, he conferred the Degree of Doctor of Laws upon His Royal Highness the Prince of Wales, in the course of which, after extending, on behalf of the University representing in a special degree the whole of Hindu India, a loyal and enthusiastic welcome to the august visitor, the Maharaja emphasised the object of the Benares Hindu University as that of preserving and popularising the best thought and culture of the Hindus and all that was good and great in the ancient civilization of India and of diffusing the highest teachings of the progressive West in art and science among the Indian youth, while at the same time of providing for the struggle for existence which was challenged by the circumstances of the modern world. Industrial power was undoubtedly essential to the re-building of a sane and healthy life for the Indian people to-day; but yet the tillage of the soil no less than the cultivation of mental and moral resources must be given a prominent place in the organisation of a Hindu university reflecting the form and impress of Indian life and surroundings.

Besides, it was the duty of Hindu culture to try and root out the seeds of disorder arising from a breaking up of the very foundations of the old order all

over the world, particularly when under the influence of revolutionary doctrines economic, social, political, educational, in a hundred guises, there was an under-current of revolt against order, progress and reform. For, it was India where Buddha preached his first sermon and set in motion the wheel of the Perfect Law, and Shaukara, Ramanuja, Kabir brought deliverance to mankind in new and untried ways. Really "India, the land which has preached and practised *Ahimsa*, the land which has through ages meditated on *Maitri* and uttered the great benediction of *Shanti*—has India no message to the world?"

The loyalty of the House of Mysore and its people to the British throne is well known and it is expressed by His Highness in a speech at the banquet to H. R. H. the Prince of Wales thus: "Mysore, its ruler and its people are united to the British Throne by ties of deep gratitude. We can never forget the magnanimity which we have received in the past, and I feel sure that nowhere in the British Empire will His Royal Highness receive a more loyal and enthusiastic welcome than that with which the whole of Mysore is ringing to-day."

A detailed reference to the volume would take long and in closing this review, it might be permissible to recall that His Highness wants everyone to be a fine all-round citizen, a really useful person. He looks upon all, whether Hindus, Mohammedans or others as equally dear to him, and his fervent appeal of 14th April 1922, when opening a mosque in the Body Guard Lines at Mysore may be repeated here with the full hope and expectation that it will help forward to soften animosities and to soothe the people of Mysore. These are the words: "I hope that you will bear in mind that you are Mysoreans first and all the rest next, owing a duty to the State, and that you will always work together for the common benefit and prosperity and advancement of the State in all directions."

S. S.

### Bhagavad-Gita.

1. A SYNTHESIS OF BHAGAVAD-GITA BY THE EDITORS OF  
THE "SHRINE OF WISDOM", 3s/6. net.

2. BHAGAVAD-GITA—AN EXPOSITION BY VASANT G. RELE. Rs. 4-12-0.  
Messrs. D. B. Taraporevala & Sons, Bombay.

THE Editors of the "Shrine of Wisdom", London, have published No. 9 in their series, in a handy and very useful form for reference, a synthesis of the Bhagavad-Gita, being an arrangement of the teachings of the Gita in their relation to the five paths of attainment. The manual is divided into six chapters. In the first Sri Krishna or the Universal Lord who is the central figure of the Gita which is his song is described. The passages which afford a valuable key to the understanding of the Gita because they indicate the relationship between Krishna and the divine principles according to which He manifests Himself, are given. The other chapters deal with Dharma-Marga, the Path of Duty; Karma-Marga, the Path of Action; Bhakti-Marga, the Path of Devotion; and

Raja-Marga, the Path of Perfective Union. The index refers to the chapter and verses of the Gita relating to these subjects. There is an introduction to this synthesis couched in an accurate narrative form indicating how the Bhagavad-Gita happens to rank among the world's most precious scriptures. He who meditates on the Gita is like a lotus leaf untouched by water and such an one no evil however great can effect.

The Bhagavad-Gita from the time of its composition has exercised and still continues to exercise the minds of the greatest men of the time and it would be an act of super-arrogation for people ordinarily to attempt to criticise the sayings of the Gita. These sayings know no barriers of race, creed or religion. They belong to all humanity as embodying universal expressions of religious truth. The authors of the synthesis deserve to be congratulated for arranging in a compact form the essential teachings of the Gita. Most of the sayings of the Gita have become current coins of quotation and household words.

The Bhagavad-Gita takes the form of a dialogue between Sri Krishna and Arjuna on the battlefield of Kurukshetra. Arjuna feels deterred on seeing his old friends and relations from giving fight on the ground that the victory would be his only when he had slain his relations. 'Better it seems to live on beggars' bread with those we love alive than slay these masters who wish us well and share in rich feasts spread.' Sri Krishna seeing the sorrow of Arjuna unfolds the path of duty to him and points out how he ought not to grieve for those who do not deserve it. As the authors say, when properly understood, the Bhagavad-Gita is indeed universal in its appeal and unexcelled in its beauty, its tenderness and its depth. Its teachings can never be superseded or lose their intrinsic value for just as the One Infinite worshipped by all religions is the same, so the One Universal Lord God manifesting Himself in human form is the same in all religions, whether He be called Osiris, Christ or Krishna. It is to union with Him that the five-fold path leads whatever the names which are applied to its differentiation and whatever the means by which they are followed. For the Lord says, "He who, with highest devotion unto Me, shall teach this supreme mystery to those who worship Me, he shall surely come to Me."

As we have said before, Sri Krishna's main idea was to compel Arjuna to perform his duties as became a Kshatriya by getting over the *shoka* and *moha* in which he was enveloped on seeing his relations arraigned in the battlefield against him. He was enjoined to work for which he had the right leaving the fruit of the action aside. In the teachings of Shankara, the discourses are an attempt to explain the *Advaita Mahavakya* of *Tatvamasi*. Chapters 1 to 6 refer to *Tvam*, i.e., *Jiva* or soul; the next six chapters to *Tat* or *Paramatma* the Supreme Being from which everything else has evolved and the subsequent chapters to *Asi* or the connecting link between the first two. Shankara gives prominence to *Jnana* and says *Karma* or action only helps to attain *Supreme Knowledge* or *Samyaktarsana*. There is one God but God alone: other visible matters are transient and destructible and *Jiva* and *Parabrahma* are one and the

same. Sorrow and unreasonable love should be overcome to attain Supreme Knowledge. Madhavacharya does not accept this theory of *Tatvamasi*. He interprets the discourses of Sri Krishna in the light of his *Dvaitism*. According to him *Jiva* and *Paramatma* have separate entities and can never become one. Ramanuja expounds the *Vishishtadvaita* philosophy, a qualified monism. Many other commentators explain the principles of the Gita in the wake of these *bhashyakars*, but do not start on an independent track. Of the modern commentators, Bala Gangadhara Tilak in his *Gita Rahasya* takes up the historical side of the Gita and offers valuable comments on the date of the Gita: whether the Bhagavad-Gita before or after Christ and the Testaments, whether it was interpolated into the Bharata, whether any ideas of the Gita were borrowed from Buddhism, etc. It looks as if he considers the teachings as a discourse on *Karma Yaga*, pure and simple, and may we add, in the sense that England expects every man to do his duty. Babu Aravinda Ghosh in his 'Essays on the Gita' develops the ethical aspect of Krishna's teachings and suggests on abstract principles that virtue should be supported and vice trampled down; possibly this may lead to the inference that Arjuna would be justified in destroying his enemies who are wicked though they happen to be his relations and friends. When a manuscript copy of the Sri Bhagavad-Gita was presented by the *Sri Sanatana Dharma Pratap Sabha* at Srinagar to His Highness the Maharaja of Mysore, he described it "as the Holy writ containing the highest ideals of Hindu philosophy and wisdom and leading us to higher planes of thought and actions in life."

We are at some pains to detail the course pursued by the commentators of the Bhagavad-Gita, because we have on our hands the second of the volumes on Bhagavad-Gita under review. Dr. Vasant G. Rele, the author of the *Mysterious Kundalini*, has attempted an original exposition of the Bhagavad-Gita. The author is a competent man of science handling with great care and considerable trouble one aspect of the *Yoga* philosophy that has to do with the mysterious nerve that runs from the head down through the body to the Solar Plexus called the vagus nerve. As Mr. Mehta says in his foreword, his exposition is a valuable contribution to the exegetical literature on the Gita. Sri Krishna is an arch-psycho-analyst who restores normal health to Arjuna. The human mind is psychical *Avyakta* and physical *Vyakta*, or the *Akshara* and the *Kshara Purusha*. The mentally deranged Arjuna regained his normal health by the psycho-synthetic process of healing by Sri Krishna. The mystic apparatus by which the remedy was applied is the *Ashvatha* tree or the nervous system. Dr. Rele's physico-psychic analysis of the human mind is based on Chapters 13, 14 and 15 of the Gita. The conception of the *Ashvatha* tree has direct connection with a living organism of the macro-cosmic *Purusha* or person and the various parts of this tree are described in Chapter 4 of the volume under reference. The excellence of this work lies in its original and somewhat unique attempt to expound the teachings of the Gita on the basis of scientific theories of modern civilisation. Further, his explanation of certain difficult verses is apt though ingenious. In

the preface to the work, Dr. Rele says some of the Vedas and most of the Upanishads are psychological treatises in their essence though their teaching is overlaid with philosophical discussions, symbolical expressions and ritualistic details that the reader often-times rustles amongst the leaves which conceal the trunk. Dr. Rele owes a great deal to Freud of Vienna for the most interesting and clear-cut exposition of the Gita. He is of opinion that some verses of the Gita have been interpolated at different times. The first illustration in the book where a diagrammatic representation of *Asvattha* is given is of absorbing interest and his chart facing the introduction gives, according to him, the composition of the living body, its working and its relation with the Divine as depicted in the Bhagavad-Gita. The details of his exposition must be left to the reader and it will not be possible to say anything more. Dr. Rele confirms in the introduction that from his exposition the same results follow as from those of the great *bhaskaryas*. The Gita is a mirror reflecting clearly untarnished ideas from every point of view. The universality of its appeal is well known. The materialist finds a code of daily life and conduct; for the philosopher there is a guide to the knowledge of self; to the man of affairs the path of action is laid bare; while to the devotionally inclined is clear the path of adoration till he merges himself into the Supreme; and if to-day, as through the ages, the Gita is studied from diverse points of view, it is due to the insight of the author of the Gita into the functions of the human mind which is so just, so profound and so true to human experience.

S. S.

### The Humanist.

A monthly magazine published by the Humanistic Club, Bangalore.

Rs. 5 per annum. Foreign 10*sh*.

WE have before us the first four numbers of the 'Humanist', a monthly magazine of the Humanistic Club in Bangalore. Col. Raja Jai Prithvi Bahadur Singh (of Nepal) is its President. The objects of the Club are: (1) to promote Peace and Good-will among the several classes and races of the world, (2) to make researches into Religion, Philosophy, Sociology, Psychic phenomena and the like, (3) to hold meetings from time to time when papers are read or lectures delivered on these subjects, and (4) to distribute literature for purposes of propaganda. The first is the primary object of the institution for achieving which the others are the ways and means. When earnest endeavours to establish peace and good-will among the nations of the world are being made through the League of Nations, the disarmament pact, the Kellogg pact and other measures, the Humanistic Club's appeal to the public deserves a most generous response by all who believe in the fatherhood of God and the brotherhood of man and the federation of the world. It is justly claimed for the Club that it offers a new interest and increased happiness in life.

Regarding the journal itself, the issues under review contain original articles from eminent writers, including papers read before the Club. The extracts are well chosen; while the quotations are replete with moral, religious and philosophic ideas taken from various sources.

The Raja Saheb's article on the 'Political Ends and Means' deplors the assassinations of highly placed men in the West as well as in the East, e.g., General Obregon in Mexico and of the Military Governor of Chinese Turkestan and the murders of ordinary men for political purposes, organised disobedience to established authority, industrial strikes, high-way robbery, lootings and kidnappings, even in broad daylight in the very proximity of police stations, accompanied by incendiarism, wrecking of property, loss of life and so forth: all these which are said to be on the increase are likewise deplored. The West leads the way in these under-currents of advanced civilisation and the East unfortunately follows. The writer does not believe in much good emanating from mere academic discussions and desires for a root and branch reform so as to affect the very ideal of the Nations and bring about a thorough change in the mentality of the people at large. Sir C. P. Ramaswami Iyer in his lecture on the League of Nations relates the causes for war: (1) prevention of democratic ideas, (2) mutual suspicion on account of elaborate preparations for war in the belief that it is for defence, and (3) economic rivalry and trade war. Mr. Iyer has been in the League himself representing India and he affirms: The League does not interfere with the internal affairs of any individual nation. There is an equality of status in the League irrespective of its extent, wealth or population. Another novel feature is unanimity. There is no majority or minority there, and even the biggest powers like England and France must achieve their object by reasoning and persuasion, even with the smallest power, and thus secure an unanimous opinion in all matters. The next important feature of the League is absolute publicity. Prof. P. R. Singarachari contributes two interesting articles on "India: Her Functions in the Economy of Races" and "Where Science and Religion Meet". The Raja Saheb has written a book on "Humanism", extracts from which in the issues of the journal form inspiring reading. We wish all success to the Humanistic Club and its journal and hope that they will become popular all over India and outside.

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Quarter ending 30th September, 1928.**

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## Books received during the Quarter ending 30th September, 1928.

### **Presented by:—**

#### **Prof. F. R. Sell—**

1. The Geography of British India: Political and Physical, by George Smith (1882).
2. Revue de L'Histoire Des Religions Publiée Sous la direction de: M. Maurice Vernes, by Première Année, Tome Premier.
3. Actes du Premier Congrès International D'Histoire Des Religions: Paris 1900 by Deuxième Partie Seances Des Sections (1902).
4. Le Maroc d'aujourd' hui d' hier et Demain.
5. Revue de L'Histoire des Religions by Vingt-Deuxième Année: Tome XLIII, No. 2, Mars—Avril 1901.
6. Archives Marocaines Publication de la Mission Scientifique du Maroc Mi, No. III, 1904, by Sommaire.
7. & 8. Actes du Premier Congrès International D'Histoire Des Religions: Paris 1900. Deuxième Partie Seances Des Sections (2 copies).
9. Archives Marocaines, Publication de la Mission Scientifique Du Maroc, Vol. II, No. 2, Sommaire, 1904.
10. Revue de L'Histoire de Religions Publiée Sous la direction de: M. Jean Reville: Vingt-Deuxième Année Tome Quarante-Quatrième.
11. Inter de Balmen by T. B. Baierlein.
12. Rumanian Bird and Beast Stories by M. Gaster.

#### **The Smithsonian Institution, Washington—**

##### **Smithsonian Miscellaneous Collections—**

1. Vol. 80, No. 9, Aboriginal Wooden Objects from Southern Florida by J. Walter Fewkes.
2. Vol. 80, No. 10, Drawings by John Webber of Natives of the North-West Coast of America, 1778, by David I. Bushnell, jr.
3. Vol. 80, No. 6, Yaksas by Ananda K. Coomaraswamy.

#### **Government of Mysore—**

1. Administration Report of the Government Garden Department for 1926-27.
2. Do. of the Agricultural Department for 1926-27.
3. The Mysore Season and Crop Report for 1926-27.
4. Report on Public Instruction in Mysore for 1926-27.

#### **Pandit Gathulalji's Samstha, Bombay—**

1. Srimad Brancha Sutrānubhashyam : Triteeyadhyayasya Chaturtha Padaha.
2. Do. do. Chaturtha.

#### **Government of Burma—**

Burma Gazetteer, Mandalay Dt., Vol. A.

**The Latent Light Culture, Tinnevely—**

Eleven Lessons in Karma Yoga by Yogi Bhikshu.

**Maison Franco-Japonaise, Tokio—**

Bulletin de la Maison Franco-Japonaise : Série Française, II—1928.

**Musée Gvimet—**

Le Musée Gvimet, 1918—1927.

**J. E. Saklatwalla, Esq., Bombay—**

1. The Soul Gospel of Omar Khayyam, the Astronomer Poet of Persia, by J. E. Saklatwalla.
2. Rubaiyat of Omar Khayyam (Tamil) by S. Krishnamachariar, B.A., L.T.
3. Rubaiyat of Omar Khayyam (Urdu).
4. Rubaiyat of Omar Khayyam (Oriya) by Damodar Misra.

**Bangiya Sahitya Parishad—**

Two Bengali Publications.

**Government of India—**

Annual Report of South Indian Epigraphy for the year ending March 1927.

**University of Mysore—**

1. Oriental Library Publications: Sanskrit Series No. 71. The Sarasvati Vilasa of Sri Prataparudramahadeva, Vyavahara Kanda edited by Dr. R. Shama Sastri.
2. Annual Report of the Mysore Archaeological Department for the year 1927.

**Messrs. Krishna & Co., Bangalore City—**

1. The New Vision in the German Art by Herman George Scheffauer.
2. How India Wrought for Freedom by Dr. Mrs. Annie Besant.
3. Glimpses of Japan and Famosa by Harry A. Franck.
4. Problems of Greater Britain by Sir Charles Wentworth Dilke, Bart.

**University of Madras—**

The Calendar for 1928-29, Vol. I.

**Government of Travancore—**

1. Sri Mulam Malayalam Series, No. XX: Bhāshā Rāmāyana Champu (Sundarakanda, Yuddhakanda and Uttarakanda) edited by Kolatteril Sankara Menon.
2. Sri Vanchi Sētu Lakshmi Series No. 9, Jyotsnika (Visha Vaidya) edited by Kolatteril Sankara Menon.

**Government of Hyderabad—**

Report of the Archaeological Department of His Exalted Highness the Nizam's Dominions for 1925-26 A.C.

**University of Calcutta—**

Journal of the Department of Letters, Vol. XVII, 1928.

**Private Secretary to His Highness the Maharaja of Mysore—**

1. Speeches of H. H. the Maharaja, 1902—1920.
2. Do. do. 1921—1927.

**The Superintendent, Government Museum, Madras—**

Administration Report of the Government Museum and the Connemara Library for the year 1927-28.

**Societe De Linguistique De Paris—**

1. Memoirs De la Societe De Linguistique De Paris Tome Dix Neuvieme.
2. Bulletin de la Societe D. Linguistique De Paris—Tome Vingt—Huitieme Fascicule 2—(Numero 85) 1928.

**Authors—**

1. Comparative Studies by K. Ramavarma Raja.
2. Memorandum No. 1 on Indian Reforms presented to the Indian Statutory Commission by G. Harischandra Rao, Cocanada.

**Purchased:—**

1. Life of Lord Curzon, Vol. II, by the Earl of Ronaldshay.
2. Indian Quarterly Register, Mitra, 1927, Vol. I, Jan.—June.
3. Do. do. Vol. II, July—Dec.

## Loan from the Director of Public Instruction in Mysore, Bangalore.

### Books on Ethnology.

No.	Name of the Book	Author's Name
1.	The Origin of Civilization and the Primitive Condition of Man.	Right Hon. Lord Avebury.
2&3.	An Essay on Western Civilization in its Economic Aspects. (2 vols.)	W. Cunningham.
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The London Law Journal writes under date 9—7—1927 :—"To those interested in the origins of civilization and the early history and development of law we would recommend this little book as worthy of attention."

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## **Manu's Land and Trade Laws**

*(Their Sumerian Origin and Evolution up to the beginning of the Christian Era)*

BY

R. S. VAIDYANATHA AYYAR, B.A., M.R.A.S., F.R.Hist.S. (London)

With A Foreword

BY

DIWAN BAHADUR SIR T. VIJAYARAGHAVACHARYA, K.B.E., M.A.,  
*Member, Public Service Commission, Delhi.*

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<i>Published by:</i> Messrs. Higginbotham & Co. Madras & Bangalore	<b>Rs. 5</b> <b>Sh. 7-6</b> <b>Net</b>	<i>Sole Agents for Europe</i> <b>Messrs. Luzac &amp; Co.</b> <b>46, Great Russell St., London, W.C.</b>
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#### **ENGLAND.**

The Times Literary Supplement, dated 25—8—1927:—

"His book insists upon that which is of greater historical importance and which is gradually receiving more and more recognition, the intimate connection between ancient India and trans-Himalayan States of Western Asia. Hindus, of course, love to thrust back their history as far into the past as is possible or plausible, often without much evidence except that of tradition and the ancient writings; but Mr. Vaidyanatha Ayyar has at least a reasoned case and one that deserves the attention of scholars in spite of their inclination to reject what is new and to cling to theories that themselves owe their stability largely to tradition."

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**Rev. Dr. A. H. Sayce, M.A., LL.D., D.D.,** *Professor, Oxford University, Honorary Vice-President, Royal Asiatic Society, London, and author of several works on Sumerian and Hittite Studies, writes :—*

"Very many thanks for your interesting book on *Manu's Land and Trade Laws* which you have been so kind as to send me. You have opened a **new chapter in the history of Indianic research.** Your legal investigations are **especially instructive.**"

**Dr. Stanley A. Cook, Litt.D., Ph.D.,** *Professor, Cambridge University, and one of the Chief Editors of the Cambridge Ancient History, writes :—*

"You have taken up a most interesting subject and one upon which there is need for new research. . . . Your theory of the Sumerian origin of the Code of Manu will be read with attention, especially by those who are not easily persuaded that parallels in culture are necessarily due to influence and I, for one, am very glad to have, in so readable and accessible a form, the materials which you have so carefully collected relating to early Indian usage. . . . **You are to be congratulated upon perceiving its (Sumero-Indian problem) importance** and impressing it upon those who might otherwise be inclined to ignore it. I hope that you will be able to continue your valuable work which you have so well begun."

**Dr. L. A. Waddell, LL.D., C.B., C.I.E.,** *Scotland, writes :—*

"I heartily congratulate you on the distinction of being the first in India itself to take up the newly found Sumerian historical keys for the scientific exploration of the long lost origin of the Indian civilization."

#### BELGIUM.

**Justificatif de la Revue de Sociologie, Brussels :—**

Dans son ouvrage '*Manu's Land and Trade Laws*' R. S. Vaidyanatha Ayyar retrace les origines sumériennes du code de Manou. Il lui paraît prouvé que ce code a été composé par Parasurama, vers 2300 avant Jésus Christ, à l'aide, des mêmes lois sumériennes et accadiennes dont le code du roi Hammourabi a été tiré, vers l'an 2100 avant Jésus Christ. Le code de Manou s'applique à un état social de l'Inde analogue à celui qu'on trouve à Babylone de l'an 2400 avant Jésus Christ à l'an 2000. L'idée de la propriété, dans l'Inde, essentiellement individualiste dès le début de la période védique a passé par quatre phases d'évolution. . . . L'idée communiste de la propriété est un

développement ultérieur dérivant d'un système de colonisation instauré par Chanakya au IV<sup>e</sup> siècle avant Jésus Christ, mais le communisme s'est rapidement écroulé dans les provinces assujetties à la loi hindoue sur la propriété, excepté dans le Punjab, qui est toujours gouverné par la coutume de cette province. Les communautés de village ont subsisté uniquement à cause d'un sentiment d'affinité de clan et de relations de familles et aucunement à cause d'une idée communiste touchant la propriété.....

### AMERICA.

**Professor G. A. Barton.** *University of Pennsylvania, U.S.A., writes:—*

"Please accept my sincere thanks for your kindness in sending me your interesting work, *Manu's Land and Trade Laws*, which I have found most suggestive. . . . Your own treatment of the laws of Manu seems very sane. You have rightly recognized the various strata which come from different periods. . . . You have opened a fruitful field of investigation and I thank you for the honour you have done me in sending me a copy of your work."

**Professor R. J. Kellogg,** *Ottawa University, Kansas, and President, American Oriental Society, writes:—*

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**The Mythic Society's Journal, Bangalore:—**

"In this valuable little book *Manu's Land and Trade Laws*, Mr. Vaidyanatha Ayyar, B.A., expounds several new theories which, I am sure, will be welcomed by every reader of Ancient Indian History as the best contribution to our knowledge on the subject. Though the early period is shrouded in mystery, the author has taken immense pains to penetrate deep into the recesses of the so-called dark ages in the Hindu period and convince the reader with his arguments regarding the origin, antiquity and authorship of the Code of Manu. . . . "



What deserves the greatest praise is the beautiful and well arranged matter bringing out the central theme of the book, namely, the evolution of the individualistic idea of property from the primitive law of the village communities to the fully developed Ryotwari system of Chanakya's times, 320 B.C. The later chapters dealing with the *Smritis*, Kautilya's *Arthasastra* and the origin of the village communities must be read by all interested in early Indian History as they cover quite a good number of original ideas and theories—the result of the author's extensive and laborious research. . . . If a number of such books are written, I do not really see why they should not make the early history of Hindustan interesting and accurate like the early history of most other countries."

**The Indian Review, Madras:—**

"Mr. Vaidyanatha Ayyar's book opens up another vista which seems to lead us to an inviting and illimitable past. (It) is a welcome and important contribution and is a credit to his scholarship and patient investigation."

**The Hindustan Review, Calcutta:—**

"It is an excellent epitome of the recent discoveries in Sindh and the Punjab and their bearing on the Indo-Aryan civilization. Mr. Ayyar has opened by his laborious research an attractive vista of historical speculation and his work merits appreciation."

**Sir John Marshall, K.C.I.E., M.A., Litt.D., F.S.A.,** *Director-General of Archaeology, Simla, and the discoverer of the Indo-Sumerian Seals, writes:—*

"Pray accept my thanks for the presentation copy of your work on *Manu's Land and Trade Laws*. Your thesis is naturally of the greatest interest in connection with our newly discovered Indus culture."

**Diwan Bahadur Sir C. V. Kumaraswami Sastrigal, Kt., M.A.,** *High Court Judge, Madras, writes from England:—*

"Thanks for your interesting book. In the present state of our knowledge it is difficult to do more than to afford convenient starting points for further research by taking stock of the knowledge afforded by materials now available and suggesting lines of further research. I think your book will serve this purpose admirably. Several of the parallels are striking."

**C. R. Reddi, Esq., M.A. (Cantab.),** *Vice-Chancellor of the Andhra University, Bewara, writes:—*

"I read through your very interesting book on the origins of *Manu's Land and Trade Laws* and was much struck by the originality you have displayed."

**Dr. R. Shama Sastri, Ph.D.,** *Curator, Mysore Government Library and author of 'The Kautilya Arthasastra', writes:—*

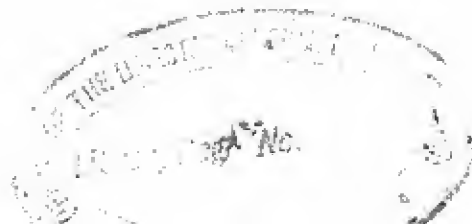
"A learned work . . . on such an important subject as you have elaborately discussed . . . a bold attempt . . . wish you success in your original investigations."

**Vedam Venkatachala Ayyar, Esq., B.A., B.L.,** *a Research scholar in Semitic Studies, writes:—*

"I agree with you in the main that the Code of Manu was derived from the Babylonian Code. Please allow me to say that this was a discovery made by me some fifteen years ago when I first read the Babylonian Code."

# CONTENTS.

	PAGES
The Dravidian Civilization in Palestine— BY R. S. VAIDYANATHIA AVYAR, ESQ., B.A., M.R.A.S., F.R.H.S.	171—179
The Temple of Augustus in the South of India— BY MONS. G. JOUVEAU DEBREUIL .. .. .	180—181
The Malayarayans of Travancore— BY L. A. KRISHNA IYER, ESQ., M.A., M.R.A.S. .. .	182—188
Comparative Studies or My Random Rambles in Solitude— BY K. RAMAVARMA RAJA, ESQ., B.A. .. .	189—196
Svetasvataropanishad— BY D. VENKATARAMIAH, ESQ., B.A., L.T. .. .	197—205
Mughal Land Revenue System— BY L. L. SUNDARA RAM, ESQ., M.A., F.R.E.S. .. .	206—221
Glimpses of the History of Arts in Malabar— BY A. GOVINDA WARIAR, ESQ., B.A., B.L. .. .	222—227
Studies in Bird-Myths, No. XXV— BY PROF. SARAT CHANDRA MITRA, M.A., B.L. .. .	228—229
Studies in Plant-Myths, No. III— BY PROF. SARAT CHANDRA MITRA, M.A., B.L. .. .	230—231
Notes .. .. .	232—233
Reviews .. .. .	234—242





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**Mythic Society**

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[No. 3

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**THE DRAVIDIAN CIVILIZATION IN PALESTINE.**

By R. S. VAIDYANATHA AYYAR, ESQ., B.A., M.R.A.S., F.R.H.S.

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IN my new book on "The Sumero-Indus Civilizations—Their Origin, Contact and Parallels" which will be published shortly, I have endeavoured to trace the origin of the Sumerian and the Hittite civilizations of Western Asia to the Indus valley and to identify the Babylonian Sumerians of the sixth millennium B.C. with the Dravidians, and the Hittites of Asia Minor of the third millennium B.C. with the Indo-Aryans of India mainly on the basis of the archaeological evidence now brought to light in most of the Asiatic countries and in Egypt and of the racial, cultural and linguistic identities, affinities and analogies presented by them. From the recent discovery of the Sumerian and Hittite relics in the Indus valley and elsewhere in India, it is becoming more and more clear that India never stood isolated from the rest of Asia in the past, but that her culture and civilization formed not only an integral part of the ancient chalcolithic culture of Asia and Europe but also one of the oldest and the richest treasure-chests from which all other civilizations derived their largest contributions and to which they gave the best of their products in exchange. From the Indus valley, one section of people who afterwards came to be designated as the Dravidians, marched towards the west, both by sea as well as by land, settled down in the province of Sumer in Lower Babylonia under the name of the Sumerians and spread their

Sumero-Dravidian civilization as far as the Holy Land of Palestine and Jerusalem and thence to Europe and Africa, while another section, known later on as the Indo-Aryans, migrated towards the north-west and established numerous Aryan settlements in central and western Asia under various names such as the Hittites or Khattis, the Mitannians and the Kassites. Both these peoples were confronted in the plains of the Euphrates and the Tigris by another virile race, the Semites of Arabia, who soon swarmed over the whole of western Asia and Egypt absorbing the Sumero-Dravidians and the Hittite Aryans in their fold and thereby bringing about a close admixture of races, civilizations and languages for a period of about 3,000 years from 4000 B.C. to 1000 B.C. The questions arising out of the connection of India with the chalcolithic civilization of Asia and Europe are so vast and varied that they cannot all be dealt with in one volume, much less in a small article. The Sumero-Indian problems are still under discussion and the controversy is likely to become as keen and acrimonious as the one that was carried on in the western countries for nearly half a century about the priority of the Sumerian over the Semitic language and culture, which finally ended in a victory for the former. The Sumero-Dravidian and the Hittite-Aryan controversy now started must necessarily take another half a century or so to settle down of itself with a liberal, and perhaps even profuse, exchange of compliments and epithets among scholars who enter into this controversy, each with a claim for monopoly of wisdom in himself.

In the present article, I propose to give a brief description of the vestiges of the Dravidian civilization found in Palestine which will take us one step nearer to the solution of the Sumero-Dravidian hypothesis. But on the question whether the Dravidian civilization marched from east to west or *vice versa*, the reader may reserve his judgment until he has perused my forthcoming publication in which I have advanced certain proofs in support of the priority of the Dravidian civilization over the Sumerian and its westward movement from the Indus valley somewhere about 6000 B.C.

The Dravidian civilization of India essentially belongs to the Stone Age and is doubtless non-Aryan and non-Semitic. The pre-historic men who used stone implements were of two classes—Palæolithic and Neolithic. The Palæolithic men did not shape their implements but used them as they were found in their natural state, while the Neolithic men made their knives and other implements from stone and flint. The oldest relics of both the early and late Stone Ages have been found in India as well as in Palestine. The Palæolithic men or the cave-dwellers of Palestine are believed to have been in occupation of that country long before the Semites entered it, while the later Neolithic men, who were also non-Semitic, have left extensive tangible

proofs of their existence in that land, which are mostly similar to the earliest Dravidian relics found in India. They are the cromlechs, menhirs, dolmens and 'gilgals'. "A cromlech is a heap of stones roughly resembling a pyramid; a menhir is a group of unhewn stones so set in the earth as to stand upright like columns; a dolmen consists of a large unhewn stone which rests on two others which separate it from the earth and a 'gilgal' is a group of menhirs set in a circle."<sup>1</sup> These monuments are found not only in India and Palestine but also in Persia, Crimea, Bulgaria, Morocco, Malta, Southern Italy, Spain, Portugal, France, the British Isles, the Baltic coast and Japan. One peculiar feature concerning them, however, is that they are always found in countries not far from the sea coast, showing thereby that one race of men migrated from country to country by sea or that the culture travelled by imitation from people to people who had facilities to come into close contact with each other.

Professor Alexander Macalister of Cambridge University found the bones of the cave-dwellers of Gezer near Jerusalem to be those of a primitive non-Semitic people who lived there before 2500 B.C. and that they crushed their grains in hollow stones by round stones and made pottery of a rude type which I shall explain in greater detail further on. These pre-historic men of Palestine were displaced by the first batch of the Semitic people, known as the Amorites, in about 2500 B.C. when their advent was characterized by the construction of fortifications in cities open to attacks. One such fortification found at Gezer consisted of three walls, the inmost of which was about thirteen feet in thickness with towers forty feet long, twenty-four feet thick and ninety feet apart from each other. The Egyptians came to Palestine in about 1970 B.C. but merely kept up a contact with it till about 1580 B.C. when King Ahmose I conquered a portion of Palestine and brought it under Egyptian domination. Within a short time the whole of Palestine was brought under the Egyptian sway and continued thereunder down to 1167 B.C. when it was overrun by the Hebrews. It was then that the Age of the Judges referred to in the Old Testament began and the country was thereafter occupied by the Canaanites, the Israelites and the Philistines.

In the midst of these migrations and upheavals, the archæologist has found traces of an ancient civilization in Palestine which take us back to several thousands of years before the Biblical history begins and which present the picture of a society very much similar to that of the primitive Indo-Dravidians, or for the matter of that, of even the modern Dravidians of this twentieth century living in the remote hilly tracts and rural parts of India. The following description of that civilization based upon the archæological

1. Barton: *Archæology and the Bible*, p. 119.

evidence disclosed by the excavations of the Palestine Exploration Fund and of Bliss, Macalister and other explorers and embodied in the encyclopædic work of Prof. G. A. Barton—'Archæology and the Bible'—will reveal at once the striking similarity between the two civilizations particularly in regard to the mode of living, arts and industries followed by the Palestinians and the Dravidians. Here I may mention in passing that the evidences now collected will be found to give a good historical, archæological and cultural setting to some of the main theories drawn from scriptures, classics and other literary evidence by Mr. M. S. Ramaswami Ayyar in his arresting but somewhat puzzling thesis, 'Where the Tamil Flag flew on Foreign Lands'.

#### Houses and Cities.

Like the Dravidian hill tribes of India, the Palestinians also generally constructed their houses on mounds and hills varying in height from sixty to three hundred feet and possessing a good supply of spring water. But the absence of springs at higher levels sometimes compelled them to settle down in the plains near water-courses, lakes and wells. The houses in the plains were usually constructed of sun-dried bricks, while those in the elevated portions were built of undressed rough stones set in mud (Figs. 1 and 2). The flooring was simply made of earth smoothed off and packed hard and sometimes also of earth mixed with lime or oftener still of stone chippings mixed with lime. The earliest houses discovered at Gezer had only an opening to serve as doorway which was apparently closed with a standing stone. In course of time the standing stones were replaced by doors fastened to posts, the lower end of which turned on a hollow stone socket (Fig. 3). The entire inhabited portion of a village was limited to a small area of ten to thirteen acres which is about the average extent of a small Indian hamlet. The houses were arranged in narrow streets and crooked lanes as in Indian villages, with no drainage or open ground, nor even space enough for a big tank within the village site. The refuse was generally thrown into the streets and allowed to soak in rain and mud. The more important cities frequently open to attack from neighbouring tribes were protected by massive stone walls of varying breadth and height. But in spite of this protection and provision of supplies, these cities were easily forced to surrender to the besieging enemies in times of warfare by the scarcity of water supply within the small city-sites. Each city was then provided with a few secret tunnels leading to springs situated outside the city which enabled them to hold out against enemies for months and sometimes even for years (Fig. 4).

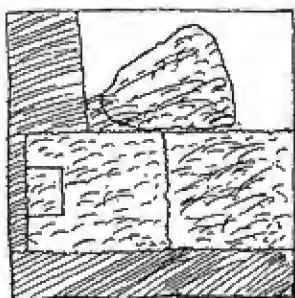
#### Roads.

There were no roads, in the modern sense of the term, in Palestine connecting these villages and cities. The so-called roads or routes were

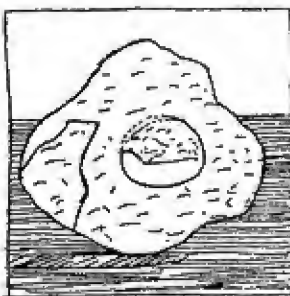




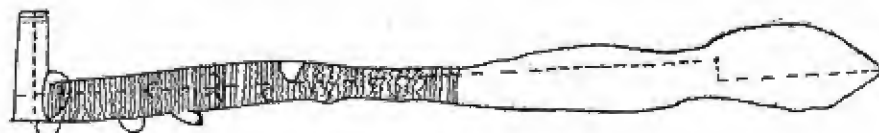
**Fig. 1**  
Specimens of Stone Work at Gezer  
(Macalister)



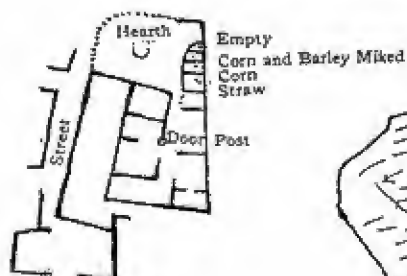
**Fig. 2**  
Building Bricks from Gezer  
(Macalister)



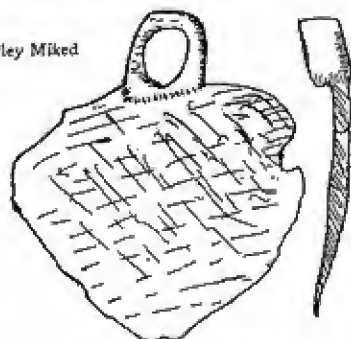
**Fig. 3**  
Door Sockets from Gezer  
(Macalister)



**Fig. 4**  
Plan of an Underground Tunnel at Gezer  
(Macalister)



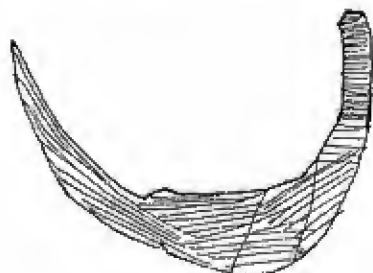
**Fig. 5**  
Plan of a Granary at Gezer  
(Macalister)



**Fig. 6**  
A Hoe  
(Macalister)



**Fig. 7**  
Plough  
(Wilkinson)



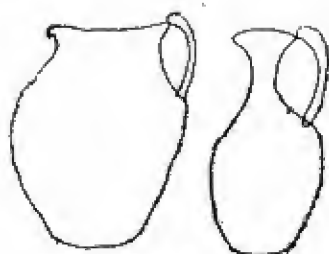
**Fig. 8**  
A Sickle  
(Wreszinski)



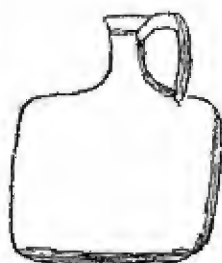
**Fig. 9**  
Winnowing  
(Wilkinson)



**Fig. 10**  
A Mortar and Pestle  
(Macalister)



**Figs. 11 & 12**  
Pitchers—First Semitic Stratum  
(Macalister)



**Fig. 13**  
A Flat-bottomed Jug  
(Macalister)



**Fig. 14**  
A Funnel from Gezer  
(Macalister)



**Fig. 15**  
A Feeding Bottle—Gezer  
(Macalister)



**Fig. 16**  
Lamp—  
Second Semitic Period  
—Gezer  
(Macalister)



**Fig. 17**  
Hebrew Lamp  
from Gezer  
(Macalister)



**Fig. 18**  
Lamp Stand  
from Megiddo  
(Schumacher)



**Fig. 19**  
Shell Spoon—Gezer  
(Macalister)



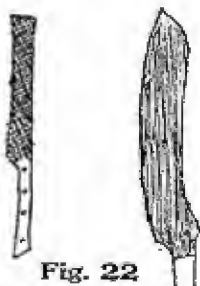
**Fig. 20**  
Bone Needle—Gezer  
(Macalister)



**Fig. 21**  
Bronze Needles and Pins—Gezer  
(Macalister)



**Fig. 23**  
A Chisel from Gezer (Macalister)



**Fig. 22**  
Iron Knives—Gezer  
(Macalister)

merely simple rough footpaths passing through cultivated fields with no fences, avenues or landmarks on either side. All travelling and traffic were done on donkeys and camels along these rugged routes. Though cultivation often extended up to the very edge of the footpaths, the paths themselves were never obstructed or interfered with by the owners of the fields who always respected immemorial custom and public convenience. "Fields traversed by such roads are still very common in Palestine. It was along such a road that Jesus and the disciples were travelling when they plucked the ears of wheat on the Sabbath. It was such a road that Jesus alluded to in the Parable of the Sower."<sup>1</sup> This system of road formation was apparently copied from India where we have still innumerable unsurveyed footpaths passing through cultivated fields in all rural tracts, over the maintenance of which neither the Government nor the people ever spend a pie, but over which, all the same, the bulk of the agricultural population of the country travel from day to day and carry their head-loads of straw, grain, fuel and various other agricultural products.

#### Agriculture.

Agriculture formed the mainstay of the Palestinians, just as it did and still does in the case of the Dravidians in India. The excavations at Gezer have exposed a large number of granaries, some small ones connected with private houses and thereby indicating private ownership and others large enough to serve as public granaries. A granary of the second Semitic stratum contained separate chambers with the charred remains of several kinds of grain, such as wheat, barley, etc. (Fig. 5). It bears very close resemblance to the Indian farm-houses or storehouses built near threshing-floors by individual farmers. It is of course impossible to expect the survival of the agricultural implements and accessories in use prior to 1000 B.C. through thirty to forty centuries down to modern times, but the few remains of them that have been recovered serve to illustrate the actual life lived by the ancient Palestinians on a par with their Dravidian brothers in India.

Lands were first prepared for cultivation by hoes of two different kinds (Fig. 6) and were then ploughed with the ordinary ploughs very often referred to in the Bible. A number of ploughshares has been unearthed from the ruins at Megiddo which is similar to those used at the time in India as well as in Egypt (Fig. 7). In the same locality several ox-goads have been recovered exactly resembling those still used in India to drive the oxen in ploughing. An ox-goad is a long stick, at one end of which a sharp iron point is fixed and in which any farmer in India can readily recognize his own 'Thar-kuchchi' in Tamil. When the crop was ripe for harvest it

1. Barton : *Arab and Bible*, p. 148.

was reaped by means of a flint sickle set in an animal's jaw-bone or a piece of wood similar to the Indian sickle (Fig. 8). The grains were then taken to the threshing floors on level portions of rocks which were regarded more or less as high places or sanctuaries from which no man would think of stealing anything. The threshing was done by driving cattle or a sledge drawn by cattle over the grains. The grain was then separated from the chaff by the process of winnowing, that is to say, by pouring the grains from pans held high on to the hand and allowing the wind to blow off the chaff as is done in India even to-day (Fig. 9). The grinding of the grain into flour was generally entrusted to women in the household who pounded it on a hand-mill consisting of a saddle-shaped stone over which another was revolved. These mill-stones were regarded as the essential and inseparable requisites of a household which could not be taken or offered as security on the ground that such an act would amount to "taking a man's life as security". The grains were also crushed, as in India, by mortars and pestles of which many have been found at Gezer (Fig. 10).

#### Pottery.

The ceramic culture was one of the earliest arts discovered and followed by the primitive men in all the countries of the world as they all commenced their lives everywhere as 'hewers of wood and drawers of water'. Of all the poor man's materials found in the globe, the two cheapest and the most widely prevalent ones were clay and flint; with the former he made all his vessels and some of his utensils and with the latter most of his weapons and instruments, until both the materials were displaced by metals. This is neither the place nor the occasion to deal with the development of the ceramic culture in the several countries of Asia, Europe and Africa since its history will cover a separate volume. Suffice it to point out here that, as in India so also in Palestine, the settled agricultural life of the people began with the advent of pottery culture. Various absolute necessities of life, such as storing grain, oil, honey, milk, water, etc., cooking food and lighting houses led to the manufacture of pots of different kinds and designs, jars, jugs, saucers, feeding flasks, lamps, funnels, spoons, etc. The excavations at Gezer have brought to light innumerable relics of the local ceramic culture dating back to the pre-Semitic, the Semitic and the post-Semitic periods of which a few specimens are given here (Figs. 11 to 15). The pre-Semitic pottery of this country was made by hand out of unrefined clay with but little ornament properly so-called. It was either sun-dried or burnt and in the latter case the heat was so irregularly applied that the surface presented different patches of colour. The vessels made were of various patterns and sizes, some flat-bottomed, others globular, conical or cylindrical.

The earliest attempt at ornamentation was made with wooden combs, the marks being either perpendicular, or horizontal or diagonal. The only colouring adopted at the time was a red paint applied to the rims of the jars and jugs or a network of red lines crossing each other diagonally. In some cases the vessel was given a whitewash all over the body except the bottom after it was fired. A little acquaintance with the history and the technique of the ceramic culture in Egypt, Babylonia, Asia Minor and the Indus valley will enable any reader readily to recognize the marvellous likeness of this ancient pottery of Palestine to the oldest Dravidian potsherds found in various parts of India, more particularly to those now found in the Indus valley.

In the first Semitic period which terminated about 1800 B.C. the potter's wheel was introduced into Palestine and the workman rotated the wheel by his left hand and moulded the vessel with the right. In the second Semitic period the wheel was worked by foot while the potter employed both his hands in moulding the vessel. During these periods the art had reached to such perfection in shape, design, ornament and painting that the wares easily found their way into the rich man's possessions as so many valuable relics fit to be preserved from generation to generation. But we are not at present concerned with the later developments of the pot culture in Palestine and India, which show extensive foreign exchange of intelligence and skill brought about by trade and commerce.

#### Utensils and Implements.

Under this head I shall refer only to a few utensils, implements and weapons usually found in all Palestinian Dravidian households.

*Lamps.*—Numerous earthen lamps of various designs belonging to different ages have been found in the ruins of Palestine along with the lamp-stands on which they were placed (Figs. 16, 17 & 18). They remind us of the time-honoured 'Ahal' and 'Vilakku-thandu' of the Dravidians.

*Spoons.*—Before the introduction of metal, spoons were all made of shells, of which many have been recovered from a Philistine tomb (Fig. 19). Similar shell spoons have now been found in the Indus valley.

*Spinning Whorls.*—As cotton was an indigenous product of ancient India, so was wool of Palestine and western Asia. Spinning was therefore one of the oldest arts practised by all the Asiatics and in the earliest stages it was done by means of a spindle, at one end of which a 'whorl'—either a stone or a lump of baked clay—was attached in order to give it the necessary momentum. A little bit of wool was twisted into a thread and attached to the spindle. The spindle was then given a thrust by one hand and the thread fed by additional quantities of wool by the other and the process was repeated until

the entire quantity of wool on hand was spun into threads. Similar spindles and whorls of bygone ages have been recovered from the excavations in the Indus valley.

*Needles.*—Needles must have come into use *pari passu* with the art of spinning and been largely employed in sewing and stitching. Both bone and bronze needles have been found at Gezer (Fig. 21).

*Carpenter's Tools.*—Various implements of stone, flint and metal have been unearthed in the excavations such as knives, chisels, files, awls, axes, hammers, arrow-heads, etc. (Figs. 22-30) which are mostly similar to the ancient relics discovered long ago all over India and in more recent times in the Indus valley. The Bible contains numerous references to carpenter's tools, of which many are said to have been used by Jesus Christ, the carpenter before his ministry.<sup>1</sup>

*Styli.*—These styli with pointed ends are usually  $3\frac{1}{2}$  to  $4\frac{1}{2}$  inches long. They were used by the scribes in Palestine for writing on clay or wax, while the Dravidian scribes employed similar styli for writing on palm leaf (Fig. 31).

*Seals.*—Seals containing various figures and devices and sometimes also the names of the owners have been found in the excavated mounds (Fig. 32). They were used by potters to mark their work and by the scribes to impress signature in clay tablets. Similar seals with figures, devices and Sumerian characters have been found in large numbers in the Indus valley.

*Musical Instruments.*—The Palestinians seem to have had a special attraction for the 'pipe' and the harp. The pipe was conical in shape about 4 inches long,  $1\frac{1}{2}$  inches wide at the bottom and half an inch wide at the top. A small reed was introduced into the pipe as a mouth-piece. It was also perforated at the side by two holes to produce different notes. This corresponds to the Indian Nagasaram. The harp was of the Babylonian pattern.

*Toilet and Ornaments.*—One of the most common articles of the toilet was the comb made of bone. The Palestinian women were specially fond of perfume boxes with myrrh, frankincense and powders stored in them. They also used Spatulae by which they applied *kohl* to the eyelids like their Indian sisters to enhance their beauty. The ornaments usually worn by men and women in Palestine were beads made of coloured stones, necklaces made of beads, cylinders and pendants, and bracelets, armlets, anklets and rings made of all kinds of metals. A good many of such ornaments have been collected from the excavations in the Indus valley.

#### Domestic Animals and Birds.

From the evidence of bones discovered in the excavations it has been found that the chief domestic animals indigenous to Palestine were asses,

<sup>1</sup>, Barton : *Arab and Bible*, pp. 168 & 169.



**Fig. 24**  
A File from Gezer  
(Macalister)



**Fig. 25**  
A Bone Awl Handle from Gezer  
(Macalister)



**Fig. 26**  
An Axe-head from Gezer  
(Macalister)



**Fig. 27**  
A Hammer  
from Gezer  
(Macalister)



**Fig. 28**  
Flint Arrow-head  
from Gezer  
(Macalister)



**Fig. 29**  
Bronze Arrow-heads from Gezer  
(Macalister)



**Fig. 30**  
Bronze Sword from Gezer  
(Macalister)



**Fig. 31**  
Stylus from Gezer  
(Macalister)



**Fig. 32**  
Seal from Gezer  
(Macalister)





cattle, sheep, goats and camels. There were also a large variety of cows of different breeds.

Evidences of bee-culture have been found in a number of inverted jars with numerous circular holes all round, which probably served as rude bee-hives. From the earliest times Palestine was known to be a land flowing with milk and honey.

Among birds, the only varieties largely found in that country were the ostrich, the duck, the goose and the hen. Of these the hen is said to have been imported from India, since it was unknown to the Palestinians before the exile. Prof. Barton observes that neither hen nor cock is mentioned in the Old Testament and that the innumerable references made to them in the New Testament indicates that they were introduced into Palestine during the interval between the Old and the New Testaments. He also points out that hen was first domesticated in India and thence introduced into China in the east and Persia in the west in about the eighth century B.C.<sup>1</sup>

The foregoing picture of the actual life lived by the Palestinians more than thirty-five centuries ago has been derived not from scriptures, classics or other literary evidence which can be interpreted in any way according to the point of view of each critic but from the mute records of history dug out from the bowels of the earth. Since almost everybody in India is well acquainted with the picture of the ancient Dravidian civilization, he can now look at this picture and see how the Palestinian farmers, skilled workmen, labourers and even women closely followed the Indo-Dravidian customs, practices and devices in their every-day life. If the two pictures are set on truly historical and archæological frames more thoroughly than I have been able to do here and re-examined in the lurid light hitherto directed by Mr. Ramaswami Ayyar into a dark and empty cellar devoid of story-telling dry bones, clay, stones, monoliths or other tangible relics, their identities and affinities will become self-evident. Both the ancient Palestinians and the Dravidians doubtless belonged to the same race of Sumero-Dravidians who migrated from India to Sumeria and thence to Palestine in the pre-Semitic periods. They were obviously recruited from time to time by successive waves of migrations from India and were thus enabled to retain the distinctive stamp of the Dravidian civilization on their faces down to the time of Jesus Christ.

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1. Barton : *Arab and Bible*, p. 156.

## THE TEMPLE OF AUGUSTUS IN THE SOUTH OF INDIA.

BY MONS. G. JOUVEAU DUBREUIL.

IT is with feelings of interest that we read in the history of India that there existed in the little state of Cochin a temple dedicated to Augustus at Muziris. The Romans established, so it seems, in the place a powerful colony and constructed a temple to worship their emperor.

I do not think that any one doubts the existence of this temple. In fact its existence is based on the authority of the 'Pentingerin Tables'.

In this short article I take the liberty of calling in question the existence of such a temple dedicated to Augustus in the south of India.

The suggestion that the Romans had built a temple to enshrine the image of their emperor and that this statue was the object of a special cult seems to me very improbable.

Augustus had been deified at Rome; but no one ever thought seriously of considering him a god. When the Romans in India felt the necessity of invoking the help of heaven, they addressed their prayers to the gods in whom they believed and not to gods so conventional as emperors.

Consequently in my opinion the existence of a cult to Augustus in the south of India seems very improbable. Therefore it is necessary to study the question more deeply before admitting the existence of the temple itself at Muziris.

In the first place it is necessary to remember that the 'Pentingerin Tables' do not locate this temple of Augustus in the town of Muziris, but in the country where Muziris stands, that is to say, in a rather vague manner, in the south of India.

Secondly, we must remark that these 'Pentingerin Tables' are not catalogues of remarkable monuments. The indication "Temple of Augustus" was not intended to direct tourists to the artistic curiosities of Southern India. It was simply an indication of a geographical nature.

We must remember that geographical names of ancient places were often misinterpreted.

The first conclusion that can be drawn from what has been said is that the author of those Tables did not certainly wish to draw the attention of travellers to the fact that they could worship the Emperor Augustus in a temple built at Muziris.

He simply wished to indicate that in Southern India there existed a celebrated place bearing a name very much similar to the temple of "Augustus".

Well, the following hypothesis suggests itself as very probable; instead of Augustus, we must read "Agustus".

The Romans were familiar with the south of India, because they traded with its coast towns. Well, as the navigation was carried on along the coast, an important point was to double Cape Comorin.

Often navigators looked upon temples as important landmarks for coasting vessels (for example, Chidambaram with its seven pagodas). Very probably there existed at that time remarkable temples at Cape Comorin. Let us open the book of R. Sewell, "Lists of Antiquarian Remains", Volume I, page 256. We read there that the pronunciation of Agastyesvaram, a town on the sea coast, which figures in the maps of the period, was Agusteshuer, and possessed a temple celebrated to the worship of Agastya. In my opinion the Roman maps of those days mentioned: "Temple Agasti" instead of temple "Agastya".

Very probably the copyists themselves did not remark this change of Agastya to Agusti or the sailors themselves brought about this change.

The sage Agastya was celebrated for having introduced the Aryan civilization into Southern India and the name of Agastya was closely united with the idea of Hindoo colonization. It is, therefore, not surprising that the Hindoos raised an important temple to this saint and that there existed not far from the mountain Padiya, sacred to this saint, a temple in his honour in the first years of the Christian era.

In my opinion, the archæologists will never find in the south of India that splendid statue of the Roman emperor which they hope to, in the ruins of the temple spot of Augustus. In fact Agusteshuer denotes the place of the temple mentioned in the 'Pentingerin Tables'.

The worship of Augustus the emperor, in the south of India, is very improbable and would be better accounted for by a confusion of names; in particular "Agusti" in place of "Agusti".

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# THE MALAYARAYANS OF TRAVANCORE.

BY L. A. KRISHNA IYER, ESQ., M.A., M.R.A.S.

(Continued from Vol. XIX, No. 2.)

## CHAPTER III.

### Kinship.

THE system of kinship among the Malayarayans is of the kind termed 'Classificatory' by Morgan, and its fundamental feature lies in the application of the same kinship term in addressing most, though not all, persons of the same generation and sex. Unlike the Nayars, who follow descent in the maternal line, they run on descent in the male line. An account of the kinship terms as it obtains among them is given below with their vernacular equivalents:—

#### *1. Relations through father, whether man or woman.*

Serial No.	English Name	Vernacular Name
1	Great-great-grandfather	No name
2	Great-grandfather	Valiappan
3	Great-grandmother	Valiamma
4	Grandfather	Appuppan
5	Grandmother	Ammumma
6	Father	Appan
7	Mother	Amma
8	Father's elder brother	Perappan
9	Father's elder brother's wife	Peramma
10	Father's younger brother	Elâyappan
11	Father's younger brother's wife	Elayamma
12	Father's elder brother's son	Chettan if elder, and by name if younger
13	Father's elder brother's daughter	Pengal if elder, and by name if younger
14	Father's sister	Ammayiamma
15	Father's sister's husband	Aschan
16	Father's sister's son	Aliyan
17	Father's sister's daughter	Chettathi if elder, and by name if younger

*II. Relations through mother, whether male or female.*

Serial No.	English Name	Vernacular Name
1	Great-grandfather	Valiappan
2	Great-grandmother	Valiamma
3	Grandfather	Appuppan
4	Grandmother	Ammumma
5	Mother's brother	Aschan
6	Mother's brother's wife	Ammayiamma
7	Mother's sister	Peramma if elder, and by name if younger
8	Mother	Amma

*III. Relations through the wife of a man.*

Serial No.	English Name	Vernacular Name
1	Wife	No name
2	Wife's father	Aschan
3	Wife's mother	Ammayiamma
4	Wife's brother	Aliyan
5	Wife's brother's wife	Nathune
6	Wife's sister	Chettathi if elder, and by name if younger
7	Wife's sister's husband	Chettan if elder, and by name if younger

*IV. Relations through husband of a woman.*

Serial No.	English Name	Vernacular Name
1	Husband's father	Appan
2	Husband's mother	Amma
3	Husband's brother's wife	Chettathi if elder, and by name if younger
4	Husband's brother	Chettan if elder, and by name if younger
5	Husband's sister	Nathune

In discussing the exact meaning of each term, we shall begin with :—

1. *Father's Father, Mother's Father, Father's Mother and Mother's Mother.*

Appuppan and Ammamma are the names given for grandfather and grandmother on both the paternal and maternal sides. Similarly, Valiappan, Valiamma are the names given for the great-grandfather and great-grandmother on both the paternal and maternal lines.

2. *Aschan.*—The Malayarayan uses this word for his mother's brother and father's sister's husband; and *Annayiamma* for mother's brother's wife and father's sister. To this day, cross cousin marriage in which the two relationships are combined in one and the same person is not unknown to this tribe. Much importance is attached to the marriage of a first cousin, which, as Sir James Frazer remarks, has been permitted and favoured among all the races except the Aryan in India.<sup>1</sup> In a society constituted on the basis of exogamy, the issue of his father's brother will be forbidden to him. Similarly, the issue of his mother's sister is forbidden. The only marriageable cousins will be the issue of his father's sister or mother's brother. These marriageable cousins are called cross-cousins. According to Frazer, dual organization was the source of both the systematic preference for the marriage of cross-cousins and prohibition of marriage of other cousins.

**Inheritance.**

Sons succeed to patria potestas, and in their absence, property devolves on daughters. If a man dies childless, the property goes to his brothers, or, in their absence, to sisters. In the absence of brothers and sisters, the property devolves on his nephew, if any. It is interesting to note that, while a daughter under the Hindu Law does not take an absolute estate in her father's property in the absence of sons, a daughter among the Malayarayans does take an absolute estate. The Hindu Law does not recognize such a custom, though public opinion is now crystallizing in its favour. Among the Malayarayans, daughters divide the property equally.

A widow has no claim on the property of her husband. His brother, whether married or not, becomes her husband and the custodian of her former children, and the property is kept intact. If she married an outsider, her maintenance does not form a charge on her sons.

The order of succession is as follows:—

First sons; failing these, daughters; failing these, brothers and their children; and lastly, sisters and their children. The widow has no place in the order of inheritance. A man may direct one of his sons to manage his property, and if he wants to give him more, he can do so in his life-time. Sons succeed to hereditary titles.

1. Colonel T. C. Hodson: *Primitive Culture of India*, pp. 91-92.



*Adoption* :—Adoption is very rare. When a man is childless, he is allowed to adopt with the consent of his heirs to property, brothers and sisters, and the Kanikaran.

It is usual a widow adopts with the permission of her *enangans*. The adopted son should perform the funeral obsequies, and he is heir to her property. In the event of the death of the adopted, she is allowed to adopt any of his brothers.

A man does not allow his eldest son or only son to be adopted. The adopted son is above sixteen years of age, and retains the right of inheriting all the property of his adoptive father. If the adoptive father begets a son after adoption, property is divided equally between them.

*Village Organization* :—The village community is a primitive institution of the backward races. The agricultural practices of the Malayarayans reveal the achievements and activities of primitive man. Among them may be mentioned shifting cultivation, felling of trees for clearing of forests, cultivation of foodstuffs, and selection of fresh sites for cultivation, as the soil showed signs of deterioration. Necessity for combination was felt for protection from wild animals.

The density of population is dependent on the sum-total of agricultural conditions, in which are to be included areas of cultivation, rainfall, physical configuration.<sup>1</sup> Tracts which can support most men are those where rice is grown. Judged by these conditions, the Malayarayans are sparsely represented being about ten per square mile, and we are enabled to assign them to the lower culture. They live in groups of from ten to fifteen huts, usually made of bamboo close to water or in an open glade of forest. Their wants are satisfied with the materials available in the vicinity of their abodes.

Village affairs were regulated by a council of elders which functioned for the welfare of the tribe. The Ponamban and Panikan were the primary limbs of the council. Both had equal status. Ponamban was a title conferred on a deserving member of the tribe by the Poonjar Chief, and it was not hereditary. Panikan was hereditary, and the eldest son was eligible to it. Since they formerly owed allegiance to the Chief, they rendered him services by manual labour. In return, remission was made for services rendered in assessment.

The status of the Ponamban and Panikan was well recognized by the other members of the tribe who rendered them service by way of clearing the jungle, harvesting crops and building huts. In return they were fed. These dignitaries have suffered eclipse by efflux of time. A large number of them have now settled themselves in the reserved forests of the State, live in

1. Colonel T. C. Hodson : *Primitive Culture of India*, page 21.

small aggregations in each *kudi* or settlement, and are now under the tutelage of the Government. The Headman or the Kanikaran is responsible for the well-being of the people in his care. He is appointed by the Forest Officer, and he is rendered manual service by the other Malayarayangans. He can fine a man for his wrongs up to two chuckrams. If a man is physically unable to do any work, the headman and others help him in clearing jungle and in other works.

Formerly, the Ponamban dealt with all offences in the village. If a man committed rape, the council met. The Ponamban reviewed the offence and awarded punishment, which took the shape of a feast or fine. The feast is called 'enanga sadya'. Fines extended from ten to a hundred and one chuckrams. If a culprit was too poor, he had to present betel to all enangans, confess his wrong, and crave the pardon of the assembled men. Feasting followed this. If he failed to do so, he was ostracised and would not be admitted to society.

In case a woman went astray, the services of a Nambuthiri Brahmin were requisitioned in former times. He is said to have thrown some flowers and to have sprinkled raw rice on the fallen woman, thereby purifying her. He used to be paid from fifty to a hundred and one chuckrams.

The Kanikarans of the present day are mere shadows of their former selves. They do not wield so much influence on their men. It is a pleasing feature of the times that they meet once a month, discuss village affairs, and part after feasting. A fund is raised now which is in possession of the Kanikaran. Loans are made to the needy to keep the wolf from their doors, and the amount is recovered in instalments. The influence of village government is passing away with the march of time under Government control.

*Funeral Ceremonies.*—When a man is gathered to his fathers, information is sent round to all the enangans. When all assemble, the Karmi selects the site for burial, which is about twenty to forty yards to the south of the habitation. The eldest son and nephew are the chief mourners. They go round the pit thrice, strewing rice and fried paddy before the pit is dug. The strewing is first done headward, then at the feet, and hands followed by prayers at each stage. They then hold the shovel and remove three shovels of earth from the site of the pit with their face away from it. The shovel is then handed over to the enangans to dig the grave, which is dug to a depth of four feet. Those who were engaged in digging the pit cannot carry the corpse. They remain near the pit.

The chief mourners go home, when the corpse is carried to the fore ground of the hut. The nephew rubs the head and body with oil, and it is then bathed. It is then wrapt with a new cloth bought by the son and

nephew. A cocoanut leaf is placed on the ground over which a cloth is spread, and the corpse is laid on it with head southward. All the enangans cover the corpse with a new cloth. There may be as many as eleven cloths. Over these is laid a shroud, five cubits long, which would fully cover the corpse. At two corners of it near the head are tied rice and paddy, while tulsi leaves and sandal are tied at the other two corners near the feet. In the case of females, a small gold piece is placed in one of the nostrils.

The son, nephew and other enangans then strew rice and paddy at the feet, then at the sides near the hand, the head, and left head again. Three times the chief mourner leads all the enangans round the corpse. They then pray. The chief mourner then anoints the forehead with sandal paste and gold paste at the nose and offers a chew at the mouth of the corpse.

Muttering Rama's name, the corpse is carried to the grave where it is taken round and then lowered into it. All the mourners then throw earth thrice with faces turned away from the pit with the hand, then wheel round, and cover the grave with earth. Small pebbles are then placed round it, while one big stone is placed at the head and feet vertically. The chief mourner makes a human figure of earth over the grave, and places tender cocoanut over the region of the breast. Then rice and paddy are strewn round the pit as before thrice. Some brambles are then placed over it so that it may not be disturbed.

All then chew and bathe. The implements are washed. They return home. The chief mourner and others fast for the day. The next day a breakfast—meagre (பட்டினிக்கஞ்சி)—is served for all the mourners at the front yard. Pollution lasts for fifteen days, though there is now a tendency to reduce the duration to ten days.

On the third day, the Karmi keeps two and a half measures of paddy in front of him. He sits with bent knees on the floor and measures it into a basket kept to the south with a measure. The paddy is again taken in front and is measured with a quarter measure into the basket. It is again taken in front. Three handfuls are then taken and put into it. This is repeated with arms crossed. Three pinches of paddy are thrown last. The Karmi then gets up, and five enangans repeat the same process. On the fourth day, six men do the same, seven men on the fifth, eight men on the sixth and nine men on the seventh day. The ceremony then ends. The same ceremony is repeated on the fifteenth day.

On the sixteenth day, when the pollution ceases after bathing, raw rice, gingelly seed, Kusa grass are placed on a plantain leaf. A plantain leaf is kept in front with one torn leaf on each side. A small quantity of cooked rice is scattered on the leaf thrice. This is then gathered on a leaf, and with lamp,

and water in front, the leaf is taken to the foot of a jack tree and kept there. Frankincense is burnt. All pray and return. The rice from two and a half measures of paddy is cooked and balls of rice are taken and placed at the foot of the tree. All pray and return, when there is general feasting. All then disperse.

It is interesting to point out that the Bontoc Luzon and the Formosan people dig graves which they line with stones.<sup>1</sup> Again the Haka, Shunkla and other southern Thin tribes inter their dead in graves lined with stones.

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1. W. T. Perry : *Megalithic Culture of Indonesia*, pages 23 and 24.

COMPARATIVE STUDIES  
OR  
MY RANDOM RAMBLES IN SOLITUDE.

BY K. RAMAVARMA RAJA, ESQ., B.A.

I. The Stories of *Ka*.

WHAT was at first conceived as unknown, and hence an object of philosophical enquiry or spiritual quest, has emerged in the later Vedic literature as the supreme god—the Creator of the Universe and the Lord of all Creatures—; and Prof. Macdonell, one of the foremost western Sanskrit scholars, explains this transformation as the result of the process of abstraction or the advance of thought from the concrete to the abstract by which Prajapati, Visvakarma and Hiranyagarbha have each later assumed more or less the character of an independent or distinct abstract deity—the supreme god or the primordial Being that is the Creator and ‘Lord of all that exists in this world’.<sup>1</sup> The philosophical quest was started in the famous Rig-Vedic hymn (X—121) of which every stanza ends with the line—“कस्मै देवाव हविषा विधेम”—explained as a query “What god should we, with sacrifice, worship?” “This *Ka*” (=who or what?)—concludes Dr. Macdonell—“in the later Vedic literature came to be employed not only as an epithet of the Creator, Prajapati, but even as an independent name of the supreme god.”<sup>2</sup> The late Mr. R. C. Dutt, to show the absurdity of the traditional Brahmanical interpretation of this simple and sublime hymn, quotes Max Muller to the effect that “the authors of the Brahmanas had so completely broken with the past that forgetful of the poetical character of the hymn and the yearning of the poets after the unknown god, they exalted the interrogative pronoun itself into a deity and acknowledged a god *Ka* or Who?”<sup>3</sup> Dr. Macdonell seems to have taken a more generous and reasonable view in explaining it as the result of a natural course of evolution of thought. Herein, however, the modern scholars differ fundamentally from the old Brahmanical school of interpreters who, though they take the word ‘कस्मै’ to be the dative form of the pronoun *Ka*, do not seem to assign to it the interrogative sense in which it is generally used, understood and explained as above, but explain this pronominal form and use of *Ka* denoting the supreme god, Prajapati, as due to the unknown nature or indeterminate character of this god. “अत्र किं शब्दः अनिर्ज्ञात स्रष्टव्याप्रजापती वर्तते”, says Sayana who then attempts to derive the word in various other

1. *The Vedic Reader*, Introduction, pp. xx and xxi.

2. *The Sanskrit Literature*, pp. 10 and 102.

3. *Ancient India*, Book II, Chapter VIII, pp. 199 and 200.

ways:—(1) from *Kam* (=to desire to create), (2) from *Kam* (=happiness) and (3) from the query '*Aham Kaḥ Syam*' (=who or what shall I be?); and so the Vedic line then comes to mean "we should propitiate or worship god Prajapati with sacrifice". This same word (कस्मै) occurs in this same sense (chief Prajapati or Brahmā) in the *Bhagavata Purana* (III—4—18):—

“ज्ञानं परं स्वात्मरहः प्रकाशं प्रोवाच कस्मै सगवान्समग्रम् ।

अपि क्षमं नो ग्रहणात् सर्वैर्वाजसायद्विजितं तरेम” ॥

Here 'कस्मै' (=ब्रह्मणे) is pronoun in the dative case but certainly not in the interrogative sense and the commentator Sreedhara Swami explains this use of *Ka* in the pronominal form to denote Brahmā as archaic. The use of *Ka* as a common noun and name of the chief and subordinate—Prajapati, Brahmā, Dakṣa and Kāśyapa—is too common to require quotation. And Prajapatis are, after all, the recognized creative agencies engaged or employed in the creation and propagation of the species. Of these, Hiranyagarbha, 'the golden germ', 'the golden egg', 'the golden embryo' or 'the golden child', was perhaps the first and the foremost from whom all life emanated and radiated to fill the surrounding vacant space.

The ancient Egyptian eschatology has also a story of *Ka* to tell. This *Ka* is not the supreme god, but a semi-divine spirit—an important constituent element of the immortal soul. Its story may best be told in the words of the English translator of Dr. Wiedemann's "The Realm of the Egyptian Dead".<sup>1</sup> His description runs thus:—"The best part of the soul is the *Ka*, a form exactly resembling the man born with him and remaining with him till he dies. But as regards the king, it was supposed to be somewhat otherwise. In sculptured scenes the king's *Ka* appears behind the monarch in the form of a little man, and sometimes the king is seen approaching his own *Ka* with prayers and offerings, receiving from it, in return, promises of success, fortune and power. A corresponding relationship between themselves and their *Kas* was doubtless attributed to the gods each of whom possessed his own *Ka*. The great temple of Memphis, for example, is not known merely as the dwelling of the god Ptah, but is distinguished also as the 'Fortress of the *Ka* of Ptah'. In the moment of death, the *Ka* left the man becoming itself, henceforth, his real personality. To the *Ka* are addressed both prayers and offerings, for it needed food and drink, and dwelt in eternity without losing the power to return occasionally to the grave, to become 'the *Ka* living in the coffin' and to remain for a time united with the mummy." Then follow the explanations with further details which the reader is left to gather and study for himself. There is also a detailed account in "*Man*" (1907, 102) of the excavation at Deir-el-Bahari in course

1. *Ancient East Series*, p. 58.

of which the sanctuary of the *Ka*, the double of the dead King Mentuhotep II, was unearthed.

It may be observed here that the Egyptian *Ka* is something analogous to the subtle body forming the vehicle of the soul of the individual which is called and described as 'Linga Sarira' in the Hindu philosophical and religious works which, again, may be compared with the germ-plasm of the modern biological science, while the Vedic *Ka* (Hiranyagarbha or the 'golden germ or egg') may be regarded as the body of the universal soul; that is to say, what the former is to the individual so is the latter to the universe: or, in other words, the relationship between the two is the same as exists between *Jivātma* and *Paramātma*. The first is more or less concrete being confined to the individual while the second, an abstract power of unlimited sphere of action. Hence here also we may note an advance of thought from the concrete to the abstract or from the particular to the general and universal. Now it is not altogether out of place here briefly to refer to the uses of the Sanskrit termination *Ka* to express the various attributes such as smallness, shortness, kindness, likeness, etc., and more especially in the diminutive sense:—e.g., तैलकम् (=small quantity of oil), वृक्षक (=a tree that is short in stature); दालक (=a boy that excites pity or treated with kindness); हस्तिक (=artificial model or figure of elephant), etc.

Having concluded the stories of *Ka*, I now pass on to another allied Indo-Egyptian topic, viz. :—

## II. 'The Journey of the Dead.'

To the ancient Egyptian, the west, where the sun sets, was the land of darkness and death and therefore of the dead, while the Hindu (descendant of a northern race) places it in the south. Yet, both the views can be traced to, and explained by, the solar analogies. There is the daily course of the sun from east to west, i.e., the sun rises in the east, attains full strength at noon and then gradually sinks down and dies at last in the west. He comes to life again next morning in the east and this daily cycle is repeated in every twenty-four hours. Similarly he awakens to new life in the spring (in the north), attains full vigour in summer (in the middle or equatorial region) and almost dies in the winter-mist or darkness (in the south), and this seasonal cycle is repeated every year. Here, it is obvious that the Egyptian view is based on the daily cycle while the Hindu notion owes its origin to the annual cycle. The idea of re-birth of the soul after the death of its former body can also be explained with reference to the same solar evidences. Then, again, the belief held among the ancient Egyptians was that the dead man in his toilsome journey is led to the Judgment Hall by the jackal-headed messengers (Anubis), whereas the dead Hindu travels along the



same path which, according to his belief, is guarded by the four-eyed dogs which are Death's messengers. Both these animals being included among the carnivorous orders these notions may be the relics of the remote age when the corpse was disposed of by exposure when it was eaten up by the carnivorous beasts, birds, etc. For, it seems to be evidently referred to as one of the three ways—the other two being burial and cremation—by which the dead body was disposed of in olden days: “*कलेबरोविदकृमि भस्मसंज्ञितः*” (*Bhag. P. X—51—52*). Here *vit* means the dead body eaten up by dogs, cats, etc., which, of course, assumes or implies exposure; *krimi* stands for the worm-eaten corpse which probably refers to burial; and lastly, *bhasma* means the dead body burned to ashes which obviously refers to cremation. Prof. A. B. Keith, in his elaborate note on “Cremation and Burial in the Rig-Veda”<sup>1</sup> shows conclusively the existence or practice of these three modes of the disposal of the dead in ancient India.

The dead man both on his way to as well as in the house of death, is exposed to the attacks of the wild beasts and other deadly animals from which protection could be obtained beforehand by learning the uses of the sacred names, spells and formulæ which are the sure means prescribed for his immunity from such dangers. All these ideas and the final judgment scene—both the Brahmanical and the Egyptian<sup>2</sup>—are worth detailed study, comparison and contrast which would, I think, demonstrate their structural affinity—not identity—but only an affinity such as the one found among the widely different species of the same large family group in the animal kingdom, and also would suggest the possibility of their independent growth in similar situations or circumstances: that is, if Nature and her surroundings give us similar analogies in our experiences in this world, similar inferences could have been drawn and similar conclusions arrived at about the next world or life beyond the grave. For, it is these analogies which provide us with keys to solve the mysteries of the past and the future; the beginning and the end of the world; and the life before, and the life hereafter. So I pass on to a study of analogies.

### III. Analogies.

Prof. Keith, reviewing Prof. Suali's “Introduction to the Indian Philosophy,”<sup>3</sup> says—“It is perfectly clear that at the outset of the syllogism it was, as was natural, a formulation of the reasoning normal in the philosophic schools, and such as reveals itself in its beginnings in the Upanishads, and

1. *Journal of the Royal Asiatic Society*, April 1912, p. 471, *seq.*

2. My authority and source of information is Dr. Wiedemann's “The Realm of the Egyptian Dead”.

3. *Journal of the Royal Asiatic Society*, October 1914, p. 1096.

was based on analogy." And later on he adds further that "the argument by example is extremely frequent in the Upanishads and follows naturally from the attempt by material similes to express the immaterial, and the use of the examples is common to all Indian philosophy." From our dream experiences we infer the separate entity of the spirit within, and its excursions outside the body in sleep, coma and so on; and also that our worldly experiences are mere illusions like dreams which will vanish when real knowledge of truth is arrived at. Latent heat or fire in wood made active by friction is an example of how and why we are unconscious of the spirit within. The spider spreading out its web for capture of its prey and withdrawing it to within itself illustrates how the supreme god creates the world at the beginning and swallows it at its end. To mistake a piece of rope for a snake is the famous simile to prove the unreality of the world as perceived by our senses. Then we have the famous fire-brand (circle) simile to illustrate how one single thing can produce multiple phenomena, etc., etc. My purpose here is not simply to enumerate these examples which can be given in any number, but to suggest one or two analogies to explain some obscure points in our Puranic story of Creation, according to which Purusha—Purusha enters into or unites with Prakriti—his own dormant energy now awakened—as a man joins duty, which (like the sexual union or fertilization of the female cell by the male one) gives birth to the first and the greatest visible body of world-wide magnitude (महत्त्व) which later acquires or develops its characteristic personality (अहंकार) out of which again come into existence the various primary elements ("भूतसूक्ष्मेन्द्रियमनोदेवाः") to form or to build, by their combination, mutual action and reaction, or joint action, the first egg—the world egg—unity developing diversity—as one seed sprouts, grows and by the natural process of differentiation becomes a plant consisting of the roots, the trunk, the branches, leaves, flowers, fruits, etc. From this egg floating on the ocean bursts forth the Primæval Man, the god Narayana (as an animal comes out of its covering egg) with a lotus plant springing from his navel, and Himself floating on the vast ocean water; and within the lotus flower appears Brahma the first Creator of the world and its creatures. The analogy for this last stage may be looked for in the human womb itself where the foetus floats in a bag of water with its navel cord connected with the placenta, a flattened leaflike circular organ, attached to the wall of the womb which must have been the basis for the imagery of the Primæval Man floating in the ocean with a lotus plant arising out of its navel—a natural simile though in it, as in all others, an exact and complete parallelism of parts can hardly be expected and worked out. For, mythology is not science. Yet from the details of description given we can more or less accurately gauge what the author's guiding ideas

were. In the domestic ceremonies of *Pumsavana* and *Vishnubali*, which are to be performed during pregnancy for procuring a male child, if they are performed after the child-birth, as they are sometimes unavoidably postponed till after the delivery, the new-born baby is to be laid on and covered with the lotus leaf and pressed gently against the mother's lower abdomen which is perhaps an artificial reproduction of the embryonic condition of the child while in the womb. This then is an additional evidence in support of my suggestion. Seeing segmented worms both on land and in sea, crawling with innumerable number of feet, a fertile head could, by undue stretch of imagination, conceive the Primæval Man as a thousand-headed, thousand-eyed and thousand-footed giant of whose parts the world was made at first: and the solitary beetle—the symbol of life as he was shown to be in a previous paper of mine<sup>1</sup>—shut within the lotus flower but moving about in all directions, might have served as the model figure for the portrait of Brahmā the Creator seated within the lotus flower that has sprung up from the navel of God Narayana floating on water. Thus I conclude that almost all the important points in the Puranic story of the world-creation,<sup>2</sup> have some corresponding phenomena of nature to copy from, although these latter are unconnected and

1. "Beetle Myths and Folklore," *Quarterly Journal of the Mythic Society*, July 1924.

2. The *Bhagavata Purana* has the following metaphorical and suggestive lines from which I received my inspiration :—

(1) दैवाक्षुभित धर्मिण्यां स्वस्यांयोगौ परः पुमान् ।

आधत्त वीर्यसाऽसूत महत्तत्त्वं हिरण्मयम् ॥

विश्वमात्मगतं व्यञ्जन्कूटस्थो जगदङ्कुरः ॥

(III—26—19 and 20)

(2) कालवृत्त्याहु मायायां गुणमय्या मन्त्रोक्षजः ।

पुरुषेणात्मभूतेन वीर्यमाधत्त वीर्यवान् ॥

(III—5—26)

(3) सवै विश्वसृजां गर्भो देवकर्मसक्तिमान् ।

विवभाजात्मनात्मान मेकधा दशधा त्रिधा ॥

(III—6—6)

(4) पुरुषोऽहं विनिर्भेद्य यदाऽसौ सविर्निर्गतः ।

आत्मनोयनमन्विच्छन्नपोऽह्लाक्षीच्छुचिः शुचीः ॥

\* \* \*

एको नानात्ममन्विच्छ न्योगतत्प्राप्तमुत्थितः ।

वीर्यं हिरण्मयं देवो मायया व्यसृजत्त्रिधा ॥

\* \* \*

अथैकं पौरुषं वीर्यं त्रिधा भिद्यत तच्छृणु ।

(III—10—10, 13 and 14)

isolated. Nature at work suggested the primary ideas here and there out of which the sages constructed the philosophy of the world—the whence, the how, the why, the where, the what, the whereto, etc., of it. And my explanation itself is perhaps an instance of the unrestricted play of wild fancy.

I have finished the study of analogies and yet have to add something more about the World Egg—the Golden Egg—the greatest body in existence of the universal soul—‘Andakōsa’ as it is called. From its description given in the *Bhagavata Purana* (II—1—25—28), it seems to have a cover of seven layers or concentric spheres of primary elements—earth, water, fire, wind, air, *ahankāra* (or personality) and *Mahattatva* (or world-wide magnitude); and the upper halves of these seven spheres are the seven worlds above, and their lower halves, the seven below. This notion seems to agree roughly with the Babylonian conception of the world, according to Prof. Warren, “as a double seven-staged temple-tower within seven concentric spheres, these spheres being the seven heavens, the upper half the region of light and the lower that of darkness”.<sup>1</sup> But with these Babylonian spheres, Prof. Warren seems to equate the seven concentric Dwipas or Isles of the Hindu mythical geography. Says he<sup>2</sup>: “The Sapta-Dwipas are seven homocentric globes each solid, yet so transpicuous that though we dwell inside them all, we may gaze right through the whirling seven every cloudless night, and behold the vastly more distant stars, unchangeably fixed in or on the outermost of all the celestial spheres, the eighth.

“The moon was represented as in some way fast to the first or the innermost of the seven. The second of the seven was supposed to be the sphere of Helios, the solar sphere. Then at ever-increasing distances revolved the concentric spheres of Mercury, Venus, Mars, Jupiter and Saturn.

“In each case the luminary we study through the telescope, is as distinct from the sphere to which it is attached as a locomotive’s headlight is

- (5) स एव पुरुष स्तस्मादहं निर्भिद्य निर्गतः ॥  
सहस्रो वैध्रिबाहुक्षः सहस्रानन शीर्षवान् ।  
यस्यैवावयवैर्लोकान्कल्पयन्ति मनीषिणः ॥

\* \* \*  
(II—1—35 and 36)

- (6) सप्तद्वीकोशः सहस्रोदतिष्ठत् \* \*  
\* \* \*  
तस्मिन्स्वयं वेदमयो विधाता ।  
स्वयंभुवं यं स्ववदन्ति सोऽभूत् ॥

(III—8—14 and 15)

1. “The Earliest Cosmologies” by W. F. Warren, reviewed by Dr. T. G. Pincher in the *Journal of the Royal Asiatic Society*, April 1910, p. 533.

2. “The Seven Dwipas of the Puranas” by V. Venkatachellam Iyer, *Quarterly Journal of the Mythic Society*, October 1924, pp. 73 and 74.

from the engine which bears it. Indeed, Milton calls the visible planet the 'officious lamp' of its invisible sphere.

"In Hindu thought the seven concentric Dwipas are (or originally were) simply the concentric invisible spheres of the ancient Babylonian and Greek astronomers, and the seven concentric seas that separate them simply the intervening concentric spaces, oceanic in magnitude."

I have elsewhere<sup>1</sup> explained the Babylonian myth of creation with reference to the uncommon phenomenon of a volcanic eruption which I shall quote below and conclude:—"The Babylonian myth of creation in which the Sun God after vanquishing in battle the several-headed monster that had arisen from the sea, cuts him asunder, and of the two halves makes heaven and earth, seems to be a vivid description of the eruption of a sea-girt volcano resulting in upheaval and appearance of land all round. The columns of fire, smoke, ashes, stones, mud and other matter shot up high into the air causing complete darkness were the several heads of this formidable sea-monster (the volcano); a stormy sea, thunder, lightning and explosion, the activities of the rival forces engaged in the hot contest; the awful scene of resulting devastation, not unlike a great battlefield; and the new plot or area of land thus brought up and made visible was a real creation, and so also the few surviving plants and animals appeared to be." That is to say, the volcanic analogy explains the Babylonian story of creation.

## SVETASVATAROPANISHAD.

English Metrical Translation with Explanatory Notes.

BY D. VENKATRAMIAH, ESQ., B.A., L.T.

### FIRST DISCOURSE.

1. Thus they the Brahma-discourers say—which cause  
Is Brahman? Whence are we begot? By whom  
Supported are our lives? Where is our hold?  
Impelled by whom are we midst joys and teens?  
Let us, O knowers of Brahman, decide.

Unlike Katha, the *Svetasvatara Upanishad* straightaway begins the exposition of *Brahmavidya*. Learned divines assemble in *aramas* or forest-retreats and discuss the eternal problems of life and death. The questions here propounded are of perennial interest to all seekers after God and the Vedanta as distinguished from other systems of philosophy has its own solutions to offer. It may be mentioned that in commenting upon the Upanishadic texts, the Advaitic school of thought is followed while the metrical version is as close to the original as possible.

The points raised here may now be set forth :—

- i. किं कारणं ब्रह्म—Is Brahman the material cause (उपादानकारणं) or the efficient cause (निमित्तकारणं) or both? If Brahman is the material cause is it so in its essential nature (शुद्धं) or in association with Maya? The Advaitic position is that the Brahman is both the material and the efficient cause (अभिन्ननिमित्तोपादानकारणं). The phrase 'किं कारणं ब्रह्म' may also mean—is Brahman the cause of the Universe or is there any other cause like time, nature, etc.?
  - ii. कुतः स्म जाताः (वयं)—From whom are we born? Since the jivas cannot in their real nature be said to take birth, being as they are one with the Brahman, the question is how they came into existence.
  - iii. जीवामः केन—By whom do we live? In whom have we our being?
  - iv. क्वच संप्रतिष्ठाः—Where is our resting place after the dissolution of this body?
  - v. अधिष्ठिताः केन सुखेदोषेषु वर्तमाना इह—At whose behest do pleasures and pains fall to our lot? Is it Isvar's will or that of some elemental deity like the sun?  
सुखेदोषेषु—सुखदुःखेषु—in happiness and misery.
2. Is Time the cause or Nature or Law supreme  
Or Accident, or Elements, or Purusha?  
Let us decide; their combination ne'er  
The cause, for there persists the human soul,  
And e'en the human soul is not the Lord  
Since joys and sorrows are its destined lot.

Various causes are postulated to account for the creation of the world but discarded as being inadequate.

These are:—

- i. काल—time. Those who regard time as the first principle declare that the cycle of *Samsara* is caused by time.
- ii. स्वभाव—nature. The materialist considers nature as the first cause.
- iii. नियति—law. The Mimamsakas hold that the root cause of the world is one's *Karma* which must work out its effects.
- iv. यदृच्छा—accident or chance. The atheists (नास्तिकाः) affirm that no intelligent creator need be admitted but that the creation is a matter of mere chance.
- v. भूतानि—the elements. Others maintain that the Universe originates from the five elements: earth, water, fire, air, ether.
- vi. पुरुषः—Hiranyagarbha. Others again attribute creation to Brahma, the Creator, known as Hiranyagarbha or the cosmic soul.

On a closer examination it will be seen that none of the above can singly be the cause of the Universe, the causal factors in our experience being always found to be more than one. Their combination (संयोग) either cannot account for the origin of the Universe, because whenever a designed combination exists there is always the implication of a *Chetanapadartha* who is benefited by it. Since the latter is logically prior to the former it (the combination) cannot be regarded as ultimate. *Purusha* (Hiranyagarbha), though a *Chetana* being included in the combination of causal factors, does not cease to be logically posterior. The individual self again, though at bottom one with *Isvara*, cannot create the world since it is subject to joys and griefs as long as *avidya* lasts.

For a fuller exposition of the different theories of creation consult Gaudapada's *Karika* on the *Mandukyaopanishad*, I, 7—9 and Sankara's commentary thereon.

3. Long lost in contemplation they perceive  
God's own power as the primal cause, obscured  
Entire in its manifold traits, while He the Lord  
The Being sole on all the rest His sway  
Extends embracing time adown to soul.

After deep meditation the seers understand that the cause of the World is *Maya*—Devatmashakti (देवात्मशक्ति) which, however, is entirely subservient to *Isvara*, unlike the *pradhana* of the *Samkhyas* which is independent of *Purusha*. Hence *Isvara* is described as मायी; Cp. 'मायांतु प्रकृतिं विद्यान्मायिनं तु महेश्वरं'—*Sret.* IV—10; 'मयाऽध्यक्षेण प्रकृतिः सूयते सचराचरं'—*Gita*, IX—10.

*Maya* through which *Isvara* works may be inferred by its effect—the phenomenal world, and cannot be perceived, for, as is well known, an effect obscures its material cause (स्वरूपैर्निगूढां). The latter half of the *Mantra* points out that *Isvar*, the one Reality, controls all those which are mentioned as causes in verse 2. The *Atman* which is no other than *Isvara* is the first principle of things since it is the necessary presumption of all other conceptions.

4. And in their vision saw the Lord engirt  
By the mundane wheel, surcused by a single rim  
Which is threefold bound and ends in sixteen points;  
With half-hundred spokes and twenty counter-spokes,  
Six groups of eight, an all-binding single cord,  
And running in three different ways impelled  
By that delusion yielding merit and sin.



The One, the Absolute, by association with *Maya* becomes the multiplex entity encompassing the whole of the Universe. The wheel of *Samaya* is here described with much elaboration. Perhaps, as Max Muller suggests, the technicalities of certain systems of philosophy, particularly of Yoga, are summed up in this *Mantra*. The point to be noted is that the whole of creation comes within the compass of *Maya*.

नेमि—felly of the wheel of *Maya*.

त्रिवृतं—surmounted by the three bands of सत्त्वं—intellectual aspect, रजस्—active or emotional aspect, and तमस्—dark or inert aspect.

षोडशान्तं—ending in sixteen. These are the eleven senses and the five elements; or the fourteen worlds and Hiranyagarbha and Virat. In all probability the sixteen mentioned here is with reference to the sixteen *Kalas* (powers) treated in the *Pramanopaniṣad*, Section VI. As applied to the wheel the extent of the circumference is denoted.

शतार्धारं—fifty spokes. The fifty letters of the alphabet, because creation is nothing but a Universe of names formed of letters. For a possible reference to the group of fifty mentioned here, vide *Saṅkhyā-Kārikā*, 46—51. Other explanations are also given for शतार्धारं.

विंशतिप्रत्यराभिः—with twenty counter-spokes intended to strengthen the spokes. They are the ten senses and the corresponding ten objects. The form प्रत्यराभिः is Vedic for प्रत्यरैः, feminine for masculine.

अष्टकौ षड्भिः—with six sets of eight, viz. :—

- i. प्रकृत्यष्टकं—the eight constituents of nature:—the five elements, mind, intellect, egoism.
- ii. ऐश्वर्याष्टकं—the eight powers of Yoga:—powers to become subtle, great, light, heavy; of attainment, uncontrolled will, sovereignty, subjection.
- iii. भावाष्टकं—righteousness, knowledge, renunciation, mastery and their opposites.
- iv. आत्मगुणाष्टकं—kindness, forbearance, absence of jealousy, purity, alertness, goodness, generosity, contentment.
- v. धात्वष्टकं—skin (ordinary and sensitive), muscle, blood, fat, bone, marrow, seed.
- vi. देवाष्टकं—the eight orders of superhuman beings: Brahma, Prajapati, Deva, Gandharva, Yaksha, Rakshasa, Pitr, Pishacha.

विश्वरूपैकपाशं—the single rope or band of desire within whose manifold forms the World is caught.

त्रिमार्गभेदं—proceeding in three different ways. The three paths prescribed for the dead are:—the path of light, of smoke and the nether path; or the way of knowledge, of *dharma* and of *adharma*.

द्विनिमित्तकमोहं—delusion which leads to merit and sin. It is ignorance which is the cause of pleasure and pain.

5. Adore we Him who's like a river great  
Which runs in channels five, crooked and wild,  
Swayed by elements five ; five vital breaths  
Its waves ; the mind its source from which proceed  
Perceptions five ; its eddies five, and griefs  
Five-fold its current strong and five times ten  
Its changing shapes and steps a row of five.

Isvara is here likened to a mighty river typifying the Universe of Creation. Though the metaphor employed is, on the whole, clear the commentators are not quite agreed as to the exact interpretation of the terms used as they seem to refer to the technology of the Yoga system.

पञ्चस्रोतोम्बुं—with waters running in five streams. The five sense-organs are meant here.

पञ्चयोन्युपवक्रां—taking an extremely crooked course swayed by the five elements.

पञ्चप्राणोर्मिं—having the five breaths as its waves. Panchaprana may also be taken to mean the five organs of action.

पञ्चबुद्ध्यादिमूलां—with the mind as its source since it is there that the five kinds of knowledge arise, derived through the five sense-organs. Panchabuddhi may also refer to the five aspects of intellection—decision, doubt, feeling, egoism, memory.

पञ्चावर्तां—having five whirlpools. These are the objects of sense which engulf man.

पञ्चदुःखौघवेगां—subject to the five floods of sorrow caused by conception, birth, old age, disease and death.

पञ्चाशद्भेदां—This is a difficult phrase to explain. Narayana gives two meanings :—

- i. The mind enters into the fifty petals of the different *Chakras* in the body and is in consequence transformed into fifty different modes of thought.
- ii. The fifty letters of the alphabet which are but the variants of the syllable 'Om'. The world of objects is one of names into whose composition the letters of the alphabet enter.

पञ्चपर्वीं—having five steps. The reference is to the five *Kosar* or sheaths—Annamaya, Pranamaya, Manomaya, Vignanamaya and Anandamaya.

6. And in this vasty Brahma-wheel wherein  
Subsists, wherein this all doth end, the soul  
Like unto a swan doth roam in vain belief  
That from itself asunder dwells the Lord  
The inspirer great ; but when the soul by Him  
Is blessed, 'tis then it gains immortal bliss.

So long as one is under the delusion that the individual self is distinct from Isvara, one is tied down to the wheel of *Samsara*. It is only when one's identity with the Lord is realized that *Moksha* is attained.

हंसः—literally a swan ; here it means the *jiva* or the individual soul.

ब्रह्मचक्रे—in the wheel of *samsara*.

बुष्टः-सेवितः; तेन-ईश्वरेण, *i.e.*, when the Lord in His mercy enables one to realize that the eternal and the self are one. 'बुष्टः' may also mean the *jīva* purified, having acquired *jñāna* and cast off all limitations arising out of duality.

7. This Brahman is He of whom the Vedas chant  
And great He is in whom the beings three  
Remain and deathless sure He is, alike  
The world by Him is well sustained; the seers  
Divine perceiving Him as the essence sole  
In Him their absorption find for aye, devout,  
And thus from recurring births are ever freed.

उद्गीतं-वेदान्तेषु गीतं—the Lord whose glory is sung in all the Upanishads; the paramount theme of the Vedānta is Brahman.

तस्मिंस्त्रयं—the three referred to are Brahma, Vishnu and Siva or Visva, Taijasa and Prajna.

सुप्रतिष्ठा—(Brahman) is the ultimate ground of all. Another reading is स्वप्रतिष्ठा, interpreted as Maya, the cause of the three mentioned in the previous clause.

अक्षरं—Since the Brahman is the sustainer of this complex and changing Universe it might be thought that everything has been evolved out of It. To refute such a view the epithet, अक्षरं (not subject to change or destruction), is used. In other words the Brahman only appears to evolve. It does not really do so. Advaita advocates विवर्तवाद and not परिणामवाद as the Sāṅkhya.

अत्रान्तरं विदित्वा—(i) understanding Him as the one being that dwells within the body.  
Note the second word is आन्तर.

(ii) Having understood the difference (अन्तर) between the Absolute and the individual soul.

लीनाः—the enlightened become one with Him; literally, are dissolved in Him.

तत्पराः—devoted entirely to the Lord.

योनिमुक्ताः—released from birth, *i.e.* from *samsāra*.

The substance of the verse is that those who realize that the one unchanging and eternal Being is Brahman and that the variegated Universe is but a phantasmagoria, attain liberation, but as long as the sense of duality persists, bondage is inevitable.

8. The Lord sustains this Universe vast composed  
Of that which perishes, that which not,  
What manifest is and what is not; awhile  
The lowly self believing that the world  
Abides for his delight in bondage dwells  
But when the awakening comes and the Shining One  
Perceives, from all the binding cords is freed.

If Jīva and Isvara are two distinct entities, it may be urged that the Vedic texts declaring their identity are futile. It will be so, no doubt, in case they are in reality distinct; but viewed correctly

it is only in the ordinary world of experience, owing to the operation of Avidya, that they appear as distinct but with the rise of knowledge Avidya is dispelled and their oneness becomes apparent. Our dual conceptions persist till the light of knowledge dawns on us.

क्षर—is all that is subject to change—the whole of the Universe.

अक्षर—is the primal cause, (अव्यक्त) Maya from which the creation springs; *Cp. Gita* XV, 16-17. अक्षर and क्षर (cause and effect) are both inextricably united (संयुक्तं), *i.e.*, always go together, neither being significant by itself. They are relative notions and each implies the other. Maya is here called Akshara, imperishable because it is beginningless and though it may finally disappear through Brahmajñana, persists till then. Hence it is for all practical purposes imperishable. Isvara whose nature is one of pure existence, consciousness and bliss (सत्, चित्, आनन्द), supports this Universe of cause and effect.

9. The two are Isvara the ruler great  
And the self of prowess nothing worth; the One  
The enlightened Lord, the other of wisdom reft,  
And both unborn; and Maya in her sway  
Unique doth hold enjoyers and the things  
That minister unto them, but the Atman dwells  
Eternal, varied as the Universe  
And quiescent. And who that comprehends  
The three perceives that Brahman is verily that.

We have to understand that the only reality is Brahman, the pure changeless Being and that it is only through association with Maya, the primordial *prakriti*, that the Universe of names and forms is generated. Now Brahman when conceived as starting the creation, becomes Isvara who with the aid of Maya brings into existence this mighty concourse of sentient and insentient beings. It is when we realize the true nature of these three entities—Brahman, Jiva and Maya that we attain freedom from bondage. Isvara and Jiva are spoken of as ज्ञाज्ञौ, *i.e.*, the former as all-wise and the latter as ignorant. Both are unborn because both are Brahman itself except for the *Upadhis*.

अज्ञा—कारणशून्या, अविद्या—*i.e.*, Maya which is a single entity though its effects are manifold.

If the self (consciousness) is one and there is nothing else beside it, how can we account for such contradictory notions as—this is *jiva*, this is *para* (Isvara), *jiva's* knowledge is limited, *para's* unlimited, *jiva* is the ruled, *para* is the ruler, *jiva* is *samsarin*, *para* is untouched by the taint of births and deaths, etc. The answer is that the plural conception of the Universe is the outcome of delusion wrought by Maya. The *Atman*, however, is the Absolute entity (अनन्तः) unlimited by space, time and object.

विश्वरूपः (सर्वकल्पनाधिष्ठानतया)—He is all because He is the substratum of all this phenomenal world.

अकर्ता—in reality no causal relation exists between the Absolute and the Universe.

ब्रह्मेतत्—after the attainment of *jnana* the entity which alone remains is Brahman or in other words *Moksha* is nothing more than the sublation of duality.

ब्रह्म is archaic for ब्रह्म; so also ईशानीशौ for ईशानीशौ.

10. And Maya has its end but Hara great  
 The destroyer of all our woes immortal is  
 And endless are His days, and He the One  
 The Refulgent Lord his sway extends o'er man  
 And all this perishable world. When, aye, our thoughts  
 We fix on Him, and communion hold with Him  
 And our oneness with the Lord we ponder over  
 'Tis then the universal Maya ends.

Here is expounded the transient nature of *prakriti* (cp. verse 8) and the eternity of *Isvara*. *Pradhana* is used in the sense of Maya or *prakriti* (प्रधानं—मुख्यं अविद्याशब्दाच्च). The Samkhya sense of the term is somewhat different as according to that school of thought *pradhana* (प्रकृति) is real and evolves the Universe, for all practical purposes, independently of the self known as *purusha*. *Isvara* is called Hara, because He destroys men's avidya (हृ—हरणे).

अभिध्यानात्—by constant reflection that all is one

तत्त्वभावात् (अहंब्रह्मास्मीति)—by feeling one's identity with the Absolute.

विश्वमायानिवृत्तिः—disappearance of every form of delusion, manifesting itself as joy, sorrow, perplexity, etc. विश्वमाया—The universe which is nothing but Maya.

अन्ते—प्रारब्धकर्मन्ते—after the Karma which has begun to operate in this life has ceased to function, i.e., after the death of the gross body. Even in the case of a Knower (Jnanin) Avidya persists though innocuous till his death and there is nothing inconsistent in his continuing to have dealings in the world till his life-pilgrimage is over.

11. Know the Lord, the Supreme Light and all  
 The bonds asunder burst and all the ills  
 Vanish quite, likewise births and deaths do cease;  
 Pray to Him, thou reachest the third lordly state  
 When death this body claims, and purified  
 Of nescience dark enjoyest thy fill of bliss.

ज्ञात्वा देवं—knowing the Luminous One. How? Not as something different from Jiva but as identical with it.

सर्वपाशापहृतिः—Jnana burns up ignorance and, consequently, desire and envy which are the outcome of ignorance. With their destruction deeds of whatever kind also cease and then the Apurva (अपूर्व)—the unseen consequence of an act which effectuates long after it is done (either in this life or after death), does not spring. Without the Apurva rebirth with its woes and misery stops.

तृतीयं—The third state. It is the state of Hiranyagarbha or the state of *Isvara* which one attains when the distinctions of तत् (That) and त्वं (Thou) vanish. The third state reached may more appropriately refer to *Moksha*.

12. 'Tis this to be known, eternal and perforce  
Fast seated in the self and none remains  
For sure other than this to comprehend.  
The enjoyer and the enjoyable and the Lord  
Whose bidding moves the world; all these the three  
Are only Brahman as the Scriptures teach.

आत्मसेस्यं—seated within one's own Atman.

*cp.* तमात्मस्यं येतु पश्यन्ति धीरा स्तेषां शान्तिः नेतरेषाम् ॥

Peace only to those valiant souls who perceive divinity within and to none else.

नातःपरं वेदितव्यं—There is nothing beyond this to be known. The one constant quest of knowledge is Atman.

भोक्ता—भोक्तारं—nominative for the objective; Jiva, the limited self.

भोग्यं—दृश्यजातं—the objective world intended as recompense for man's works (कर्म).

प्रेरितारं—Isvara at whose impulsion the Universe moves and upon whose permissive will all the happenings depend.

मत्वा—having understood that the three entities mentioned here—the individual soul the world of experience and Isvara—are but one reality though appearing distinct through the operation of nescience.

13. As fire that in the fuel inheres but hides  
Its form although its germ remains unquenched  
And forth it bursts when churned by another fuel,  
Likewise is God in us by 'Om' revealed.

Yoga as a means of acquiring Brahmajnana is here described. Atman who lies hidden within one's self becomes revealed by unabated meditation on the sacred *pranava* just as the fire that is latent in a piece of wood emanates when drilled by another piece of wood.

योनिगतस्य—of that which resides in the bottom stick.

मूर्तिः—स्वरूपं—form.

लिङ्गनाशः—लिङ्गस्य सूक्ष्मदेहस्य विनाशः न—The fire in the stick is not destroyed but it exists in its subtle form.

इन्धनयोनिरुद्धः—It (fire) is obtained owing to its (stick) being rubbed by another stick.

उभयं—both, i.e., Atman in its unmanifest and manifest condition. Before meditation Atman lies hidden but is realized after *pranavoparana*.

14. Now let thy body stand for under-wood  
And 'Om' the upper wood; and churn them oft  
In meditation deep for then thou find'st  
The Lord as the hidden fire within the wood.

It is in one's heart that God has to be sought and this can be accomplished by constant meditation on 'Om'. The Absolute which is pure bliss can be realized only by *samyajjñana* or uncontaminated Knowledge, because it serves as the means of kindling the vision of God latent within us.

15. As oil in sesame seeds, as ghée in curds,  
As water in a channel bed and fire  
In churning rods, so is Atman in Atman found,  
The same that in us as witness dwells, by one  
Who seeks pursuing truth with mind composed.

The similes employed here indicate that the goal can be reached only by ceaseless endeavour. Atman is not to be sought outside one's own self; the seeker and the sought are one—आत्मा खेन स्वयमेव गृह्यते.

स्रोतःसु—literally in streams, but here it must be taken to mean in dried-up streams.

आत्मनि—, in the mind or heart.

'असौ'—may either go with आत्मा, the internal self, or with यः in the next line, meaning

मुमुक्षुः—the seeker after God.

सत्येन—pursuing truth or adhering to truth.

तपसा—with mind and senses composed; *cp.* मनसश्चेन्द्रियाणां च ऐकान्त्यं परमं तपः.

16. And Him who pervades all, the inner Self  
Like unto butter that intermingled is in milk  
Whose springs are found in contemplation deep  
And Knowledge of Self; 'tis Him ought one to know—  
That Being great of whom the Upanishads speak,  
That Being great of whom the Upanishads speak.

आत्मविद्यातपोमूलं—Brahmavidya and contemplation are the means by which the Atman is known; or the phrase may mean—Brahman is the source of all knowledge and meditation since it is through Isvara's grace that one's mind is turned towards आत्मविद्या and तपस्.

उपनिषत्पदं—पदं-विषयः—the one subject of the Upanishads.

'उपनिषत्परं'—is another reading, meaning 'the Lord within us; the hidden or the mystic Self.'

The repetition of the phrase is to indicate the close of the chapter.

## MUGHAL LAND REVENUE SYSTEM.

BY L. L. SUNDARA RAM, ESQ., M.A., F.R.E.S.

(Continued from Vol. XIX, No. 2.)

### CHAPTER III.

Under the Later Mughals.

#### PARTIAL SURVIVAL OF AKBAR'S SYSTEM.

SPEAKING of the land revenue system under Akbar, Mr. Keene says : " The very successful land revenue system of British India is little more than the modification of these principles." Akbar's system has distinctive merits of its own, and even though his successors on the throne of Delhi deviated from his ideal system and innovated changes for the worse, there was a departure from even this by the early British administrators of India. When I speak of the partial survival of Akbar's land revenue system I only mean the changes introduced in the machinery of revenue administration and the setting aside of Akbar's lenient and laudable system of revenue collection by his immediate successors, while recognizing the principles underlying his system as perpetuated by the British administrators of to-day. I now proceed to state the general changes introduced by the later Mughals into the system of Akbar, while reserving the treatment of the system prevalent under them for a fuller discussion later on.

At the outset it is well to remember that by the time of Aurangzib the fifteen *Subas* of Akbar became twenty-one, since Tatta, Kashmir and Orissa, originally included by Akbar in the *Subas* of Multan, Kabul and Bengal respectively, were separated while the *Subas* of the Deccan became six instead of the original three. The framework of Akbar was to some extent retained, but several changes were effected in the designations of officers and the functions performed by them, while the spirit of Akbar's system was distorted.

A segregation was made in the functions of the *Sipah-Salar*, who was the governor of the *Suba* under Akbar. Two distinct officers sprang up, the *Subadar* who has the control of the military affairs of the province, and the *Diwan* who mainly occupied his time with revenue affairs. No direct provision was made by Akbar for a segregation like this, but slight traces of it can be seen in the different functions performed by his *Amilguzar* and *Faujdar* who jointly managed the affairs of a district.

Another change is to be seen in the functions discharged by the *Amilguzar*. The *Ain* indifferently uses *Amil* and *Amilguzar* for a single



officer. In the instructions to the *Amilguzar* it says: "He shall acquaint himself with, and maturely consider the conduct of former *Amils*; and if they appear to have been guilty of inconsiderateness or dishonesty towards the husbandman, he must strive to remedy the evils they have occasioned." On Akbar's *Amilguzar* fell the main burden of revenue administration, while the *Amil* of later times was totally eclipsed by the provincial *Diwan*.

As regards the sub-divisional officers, the *Amin* and the *Karori*, some changes were introduced. Under Akbar the *Amin* was the main spring of administration. His function was to strike a compromise between the State demanding the revenue and the individual paying it, and the word literally means "an umpire, an arbitrator, a trustee for others", whereas under Aurangzib the *Amin* becomes the executive subordinate of the *Amil*. As for the *Karori* he is the actual collector of revenue under Akbar. The *Amin* assessed and the *Karori* collected. As Mr. Moreland puts it, the *Karori* under Akbar is a "colonization officer", whereas under Aurangzib he became a sub-collector.

As for the so-called "local authorities", the *Chaudhari* and the *Mugaddam*, who were headmen of the pargana and the village respectively and the *Qanungo* and *Putwari* who were registrars in the same order, Akbar put special stress upon their labours, whereas the attitude of the later Mughals towards these officials was one of suspicion and distrust.

Under the later Mughals, the spirit of Akbar's land revenue policy was totally avoided. Though innovations were introduced for the worse by the descendants of Akbar the system was to some extent preserved, but with the death of Aurangzib the system thoroughly collapsed, and it required half a century for it to reclaim its recognition under administration of early British Governors-General of India.

The general changes may be best summarized as follows. The standard of assessment was raised from one-third to one-half of the gross produce or even more. The pressure on the peasants had been increased and the farming of State revenues was resorted to. Unlike the *Zabti* system of Akbar, *Nasaq* or summary assessment became the rule under the later Mughals. The rise of the rental system and the segregation of the fiscal from the military functions of the *Sipah-Salar* are other features of importance to be noted.

#### Land Revenue System under the later Mughals.

We may now pass on to the system of revenue collection under the successors of Akbar. The administration of the country under Jehangir was carried on on the lines laid down by Akbar, but a general deterioration is perceivable in it owing to his personal inferiority when compared with his illustrious father. His "habitual and excessive intemperance.....added artificial

ferocity to his innate violent temper."<sup>1</sup> He was a "strange compound of tenderness and cruelty, justice and caprice, refinement and brutality, good sense and childishness."<sup>2</sup> A fitful emperor, Jehangir was sometimes "barbarously cruel" in the words of Terry, and at other times showed signs of clemency. Hawkins puts the revenue of the empire under Jehangir at fifty crores of rupees. Even though the statement seems to be far from fact, we cannot refrain from believing that the revenues under Jehangir increased greatly when compared with the ten crores of Akbar. Roe's *Journal* throws light upon this point. Speaking of the viceroy of Patan he says: "He had regal authorities to take what he list." The general change from the *Zabti* to the *Nasq* form of revenue collection is attributed to the reign of Jehangir. Mr. Moreland suggests: <sup>3</sup> "The regulation system can have had no friends in the villages except among the smaller peasants; officials must have hated it because it meant hard work with strict time limit; the 'local authorities' must have resented the reduction of their influence; and substantial peasants must have anticipated extortion in proportion to their ability to pay. In all probability, therefore, its continuance depended upon the driving force supplied by Akbar, and I suspect that it did not last long after his death." Besides, the segregation of the powers of the *Diwan* and the *Subadar* can be traced to his reign, and the former official was placed under the direct control of the imperial *Diwan*. It is further believed that the *Diwan* was to act as a check over the autocracy of the *Subadar*, while a mutual watch was enjoined on both these officials.

Under Shah Jahan the pressure on the peasant increased. The eulogy of Rai Bhara Mal as regards the attention of Shah Jahan to "improvements of agriculture and the collection of the revenue of the State" suggests the excessive pressure of the State's demand. The imperial expenditure multiplied fourfold, and yet the treasury was full enough to supply the fabulous expenditure of money by Shah Jahan on monumental works such as the *Taj*. How far this is a sign of exceptional national progress is a point that cannot be easily assessed.

At the death of Shah Jahan fifty *Abwabs* or illegal cesses are said to have been flourishing.<sup>4</sup> The comprehensive term *Abwab* covers all the taxes of the government, such as duties on local sales of produce, fees on the sale of moveable property, licences for plying certain trades, special imposts upon the Hindu subjects, besides perquisites for the benefit of the officials and other forced loans and subscriptions.

1. Smith : *Oxford History of India*, p. 387.

2. *Ibid.*

3. *Journal of the Royal Asiatic Society*, January 1922, pp. 28-29.

4. Sarkar : *Mughal Administration*.

Besides, a dark background was afforded by the great famine of 1630—32 to the "prodigal expenditure and unexampled splendour of the court" and the excessive demands of the State. Abdul Hamid describes the appalling condition of the country when life was offered for a cake, when dog's flesh passed off for goat's flesh, and the "flesh of a son was preferred to his love". The writer of the *Badshah-Namah* states that the emperor opened soup-kitchens, spent a lakh and a half of rupees on charity, and remitted one-eleventh of the assessment. The remission of one-eleventh of the revenue means that efforts were made to collect the rest of the revenue when the country was reduced to the direst extremity and retained no trace of productiveness.

Bernier's gloomy remarks upon the state of affairs during the period of his travels in Hindustan from 1656 to 1668 should be taken in relation to the anarchic and stormy closing years of Shah Jahan's reign and the first decade of Aurangzib's administration. But Aurangzib was preoccupied during the early years of his reign with maintaining order and making his position secure. Hence, Bernier's account may be taken broadly as representing a state of affairs at the close of Shah Jahan's reign.

In his *Letter to Colbert* Bernier gives a graphic account of the state of affairs in Hindustan. "Of the vast tracts of country constituting the empire of Hindustan, many are little more than sand, or barren mountains, badly cultivated and thinly peopled; and even a considerable portion of good land remains untilled for want of labourers; many of whom perish in consequence of the bad treatment they experience from the governors. These poor people, when incapable of discharging the demands of their rapacious lords, are not only deprived of means of subsistence but are bereft of their children who are carried away as slaves. Thus it happens that many of the peasantry, driven to despair by so execrable a tyranny, abandon the country, and seek a more tolerable mode of existence either in towns or in camps; as bearers of burdens, carriers of water, or servants to horsemen. Sometimes they fly to the territories of a Raja, because there they find less oppression, and are allowed greater degree of comfort."<sup>1</sup> "The country is ruined by the necessity of defraying the enormous charges required to maintain the splendour of a numerous court, and pay a large army maintained for the purpose of keeping the people in subjection. No adequate idea can be conveyed of the sufferings of that people. The cudgel and the whip compel them to incessant labour for the benefit of others; and driven to despair by every kind of cruel treatment, their revolt or their flight is only prevented by the presence of a military force."<sup>2</sup>

1. *Travels in the Mogal Empire*, p. 205 (Edited by Archibald and Smith).

2. *Travels*, p. 230.

Again, Bernier speaks of the practice of "selling different governments for immense sums in hard cash" and the absolute authority of "timariots, governors or contractors" over the helpless, oppressed and the aggrieved peasant. The iniquities suffered by the peasants are to some extent mitigated at the capital and its neighbourhood since any serious act of outrage on the part of the officials cannot be kept from the ear of the emperor. "The governor is the absolute lord in the strict sense of the word" capable to "extract oil out of sand" with the sole and unrestricted authority of deciding controversies with his cane and caprice.<sup>1</sup>

But even this tyrant has some redeeming features. The sovereign as the sole fountain of justice is best exemplified in him, equitable considerations apart. Notwithstanding Shah Jahan's love of power and show and pleasure, he never relaxed the control of the administration of the country, and even introduced important changes such as the survey of the Deccan. Khafi Khan's comparative estimate of Akbar and Shah Jahan may be accepted. If Akbar is famous as conqueror and law-giver, Shah Jahan is noted for "the order and arrangement of his territory and finance, and the good administration of every department of the State".<sup>2</sup>

We may now pass on to the system of administration of land revenue under Aurangzib. Under him it was worse, since his control over his subordinates was anything but appreciable, which was further aggravated by his habitual distrust of his officers. The main sources for our estimate of Aurangzib's revenue policy are the *Furmans* granted by him to Rashik Das and Muhammad Hashim. Both of these *Furmans* indicate that the pressure on the peasant had increased. In the *Furman* addressed to Muhammad Hashim the following passage is to be found:<sup>3</sup> "At the beginning of the year, inform yourself as far as possible about the condition of the peasant, and whether they are engaged in cultivation or abstaining from it. If they have the means to cultivate, ply them with inducements and encouragements, and show them any favour they desire. But if it be found that, in spite of having means to cultivate and of a favourable season, they are abstaining from cultivation, then you should urge and threaten them, and make use of force and the whip (*Zarab*)."<sup>3</sup> Inducements and encouragements are not necessary if the people were left to cultivate their lands at ease, while using force and the whip means the cultivation of land under coercion. The above quotations

1. *Travels*, p. 236.

2. Cf. Elphinstone : *History*, p. 585.

3. *Journal of the Royal Asiatic Society*, January 1922, p. 26.

from Bernier and certain clauses of the *Furmans* show the desertion and flight of cultivators from their lands, which must have been necessarily done to escape extortionate treatment. The preamble to the *Furman* addressed to Rashik Das describes the existing system as follows :—<sup>1</sup>

"The *Amins* assess the bulk of the villages and purganas at the beginning of the year on a consideration of the produce of the *Sal-i-Kamil Wa Sal-i-Muttasil*,<sup>2</sup> the culturable areas, the conditions and the resources of the peasants and other data ;

"And should the peasants of any village refuse this procedure they assess the revenue on them at harvest by the procedure of measurement (*Jarib*) or estimation (*Kankut*) ;

"And in some tracts (*Qariab*), where the peasants are known to be poor and to lack capital, they employ the procedure of crop division (*Ghallabakhsh*), at the rate of half, or one-third or two-fifths or more or less."

From this passage it will be evident that threats to some extent made the process of revenue collection easier. Measurement left a great scope for extortion under the mediæval methods of survey, and the villagers were in constant fear of the swarms of surveyors that might be let loose upon them.

Under Aurangzib *Nasaq* was the rule. The farming of the revenues was common since it was easier. The peasants must consent to the demands made by the State or else a resort was taken to *Paimaish* which was in itself more dreaded by them. Besides, the conditions in the *Furmans* provided for the payment of the revenue in cash. The *Furmans* provided for remissions to be granted in case of calamities that befell the country between the time of assessment and the date of collection at harvest. But the strict orders to officials to have a scrutinizing eye on the details of calamities, the utter disregard of the local *Qanungos*, *Putwaries* and other "local authorities" enjoined upon them, and the "adjusting entries" which were often made use of, suggested the existence of a certain amount of fraud.

There was a perennial struggle on the part of the administration of Aurangzib to prevent the assignees of lands from realizing extra amounts other than their stipulated incomes. But the struggle was not the outcome of the genuine desires on the part of the government to prevent perquisites from being exacted altogether ; rather, their constant desire to see those collections being sent to the imperial treasury promoted the government to have a strict

1. *Journal of the Royal Asiatic Society*, January 1922, p. 27.

2. "The past year and the present year preceding it", according to Sarkar, or "the produce of the standard year and the most recent year" according to Moreland.

watch on the realizations of the timariots. The special injunctions to the provincial *Diwans* required them to see every *Dam* of revenue collected by revenue officials reach the imperial treasury by seizing the local rough accounts of villages, and comparing them with the returns despatched by their immediate revenue subordinates.

We may now compare the revenues of Aurangzib with those of his predecessors. Akbar demanded one-third of the produce realized by the cultivators while abolishing various vexatious taxes and granting remission. Aurangzib generally demanded one-half of the produce, nearly all the surplus which the peasant possessed over and above the actual cost of production. Especially in Guzerat, half and at times three-fourths was taken by the State. The preamble to the *Furman* already quoted points to the fact that revenue collection was pressed as far as it was practicable; either half or one-third, "either more or less"—it does not matter! The conditions of the people may be described in the words of prophet Joel: "That which the palmerworm hath left hath the locust eaten; and that which the locust hath left hath the cankerworm eaten; and that which the cankerworm hath left, the caterpillar hath eaten."<sup>1</sup> Even though the farming of the revenues is not mentioned in the *Furmans* it was a circumstance which was widely prevalent in mediæval India.<sup>2</sup> The fact that the revenues of the empire greatly increased under Aurangzib when compared with the extent of the imperial dominion is best illustrated by the table of revenues for the individual reigns of the Mughal sovereigns. It represents the gross revenues of the Mughal empire at the various dates mentioned which include other sources of revenue than the land revenue and is taken from the appendices to Dr. Edward Thomas' *Revenue Resources, etc., of the Mogul Empire*:

Period	Reign	Rupees
A.D. 1594	Akbar	14,19,09,576
A.D. 1648	Shah Jahan	22,00,00,000
A.D. 1654	Aurangzib	26,74,39,702
Some year between 1656-1667	Bernier's return	22,59,35,500
Date uncertain but held to be between 1667-1691	Official returns	33,64,14,398
A.D. 1697	Aurangzib	38,62,46,802
A.D. 1707	Aurangzib	30,17,96,859

1. *The Book of Joel*, I. 4. (Old Testament. Authorized Version.)

2. Cf. Bernier's statements quoted *infra*.



From this table it will be evident that the revenues of Aurangzib amounted at one time to nearly three times those of Akbar.

The rise of the rental system was a prominent feature about the revenue system of Aurangzib. In Akbar's administrative system there are no hints about the prevalence of the rental system, while no claim was made by the State upon land that was not cultivated. But under Aurangzib holders of land were liable to payment at a definite rate of assessment whether the land was cultivated or not. This state of affairs is traceable to the disappearance of the regulation system of Akbar and the usual prevalence of summary assessment which was convenient to officers and leading landholders, while further convenience led to the adoption of the system of cash rents.

The excessive prevalence of assignments and the farming of governments in mediæval India lead us to examine the origin and nature of the *zemindar*, the *Jagir* and the system of revenue-farming. It should be remembered that the general appearance of intermediaries was made possible by the prevalence of summary assessments, the lavish grants of assignments, and the practice of farming State revenues. The *zemindar* was originally an intermediary between the State and the individual peasant for the speedy collection of revenue and was allowed a commission for his labours. Later the *zemindars* became the immediate masters of the peasants and a clause in the *Faymans* of Aurangzib provided for *Izara* or speculative leases.

The *Jagir* system presumably originated in the distribution of the newly conquered and occupied lands by the chief of a horde among his followers and relatives. Bernier observes that <sup>1</sup> "the King, the proprietor of the land, makes over a certain quantity to military men as an equivalent for their pay; and this grant is called *Jah-Gir*, or as in Turkey, *Timar*; the word *Jah-Gir* signifying the spot from which to draw, or the place of salary." This is a reference to the apportioning of *Jagirs* to persons holding *Mansabs* or commissions in the army. Allauddin paid the army musters in cash, while under Firuj Shah the granting of *Jagirs* became the law. Akbar once again reverted to cash payments, while under his successors the granting of *Jagirs* became the general feature.

The nature of the system of farming is best described in the words of Elphinstone: <sup>2</sup> "The government of provinces in such cases is conferred on the person who engages to give security for the largest annual payment into the treasury. This contractor in like manner farms his sub-divisions to the highest bidder; and these last, in their turn, contract with the headmen for fixed payments from the villages, leaving each of them to make what profit he can for himself. By these means the natural defender of the

1. *Travels*, p. 224.

2. *History*, p. 78.

cultivator becomes himself the principal oppressor; and, if the headman refuses the terms offered to him, the case is made worse by the transfer of his office to any stranger who is willing to accept the contract." With this passage must be taken the already cited verse from the Prophet Joel if we want to clearly understand the nature of the system. The farming of revenues was prevalent throughout mediæval India. *Ibn Batuta* travelling in A.D. 1333 speaks of the conferring of governments upon people. Speaking about the Governor of Lanari he states that "the collections of this town are sixty lakhs annually.....to the Governor pertains one-twentieth of this. On such condition the sovereign confers governments, (the grantees) taking one-twentieth of the revenues."<sup>1</sup> From this passage it is clear that the farming of revenues or the conferring of governments on condition prevailed as early as the beginning of the fourteenth century. Besides, the fixing of the revenue at sixty lakhs on a single town shows the abnormal collections made by the Government. We are already familiar with the remarks of Bernier and they need not be repeated once again. Suffice it to say that the farming of the revenues reached its highest pitch by the middle of the seventeenth century. Even as late as the close of the eighteenth century we see the system of farming revenues by Warren Hastings. By putting certain tracts of land to auction he realized the revenue from middlemen to whom the revenues were farmed, and this was intended as a makeshift for his hurried quinquennial 'settlement' of 1772-77. The evil effects of this system have already been described. *More was paid* than the stipulated sums and hence the misery of the people was aggravated.

#### Murshid Quli Khan's Settlement of the Deccan.

A word or two may be needed to explain a separate treatment given to the settlement of the Deccan by Murshid Quli Khan. In the first place, the system was totally confined to the Deccan. Being an outlying province the system of revenue collection prevailing there is not quite consonant with the one existing in the plains of Hindustan. Secondly, the system affords a bold contrast to the methods of revenue collection by Shah Jahan and remains an administrative enigma, so far as the nature of revenue collection under Aurangzib is viewed in relation to his subadarship of the Deccan and his position as the Emperor of Delhi. Besides, we find a relief in Murshid Quli Khan after seeing the unpleasant nature of things existing in Shah Jahan's time and after. Murshid Quli Khan was a brilliant student of the revenue system of Raja Todar Mal, and imbibed its true spirit. Even though he "*plagiarised*" from the system of Todar Mal—if ever there is plagiarising

1. *Journal of the Royal Asiatic Society*, July 1887, p. 398.



in the field of administration, his system remains laudable against the travesties of the ideal form of revenue system handed on to posterity by Akbar, Jehangir and Shah Jahan on the one hand, and by Aurangzib on the other.

Aurangzib's viceroyalty of the Deccan marks an epoch in the history of the revenue administration in Southern India. It stands as a contrast to the existing systems of revenue collection all over India, and offers a bold model for copying by later sovereigns in the Deccan. When Aurangzib first became Viceroy of the Deccan he saw a wretched state of conditions prevailing. Lands were not efficiently cultivated, revenues of the State were scanty, the extortion on the part of the Government great, and the peasant's lot miserable. All this was further aggravated by the penury of the people.

The wretched state of affairs is attributable to the governors appointed to manage the affairs of the country. A frequent succession of short viceroyalties aggravated the appalling situation of the country. It is stated that in eight years there were six viceroys.<sup>1</sup> Even Aurangzib was frequently displaced in his viceroyalty by his fitful father. But he had under his regime an industrious and benevolent revenue administrator, Murshid Quli Khan, who combined in his person "the valour of a soldier with the administrative capacity of a civil servant."<sup>2</sup>

When Murshid Quli Khan was appointed Diwan of Balaghat or High Lands—an administrative division of the Deccan effected by Aurangzib, he found the state of the peasants wretched. Several abuses had crept in during the first and second viceroyalties of Aurangzib between A. D. 1644—1653, and especially the abominable tyrant Khan-i-Dauran's death was "hailed as a divine deliverance".<sup>3</sup> Utter chaos prevailed in the Deccan and the absence of system in matters of revenue collection left the people at the mercy of rapacious and greedy revenue underlings. And there was a general desertion of lands by the people.

Murshid Quli Khan set himself to ameliorate the condition of the people and extended to Balaghat the system of Todar Mal—a panacea for revenue maladies. The system as changed by local conditions was afterwards borrowed by the rest of the Deccan. He gathered all the scattered ryots by deputing wise *Amins* and honest surveyors to make a minute and impartial survey of the land, appointed *Mugaddams* of character to villages who had lost their headmen, granted *Taqavi* loans in case of peasants who were incapable of buying the necessary 'plant' for agriculture, and maintained the efficiency and equity of the system by strict personal supervision. "The honest and God-fearing

1. Sarkar: *Aurangzib*, Vol. I, p. 178.

2. *Ibid.*, p. 190.

3. Smith: *Oxford History*, p. 418.

*Diwan* often dragged the measuring chain himself with his own hands" to prevent corruption and partiality. Above all he gave due consideration to local conditions. He fixed a lump payment in certain cases, resorted to metayarship in other cases, at the rate of half the produce in case of crops depending upon rainfall and one-third in case of crops depending upon wells or canals. Even here the standard of Government's share was fixed at one-fourth, and a *Jarib* or survey was made for the fixation of assessment rates according to the area cultivated and the nature of crop grown. Here, as regards the scale of assessment by Murshid Quli Khan, it may be curious for us to note what logicians call a chance coincidence of phenomena between it and the injunctions of Sukra about the share of revenue that is to be demanded by the State with regard to lands depending upon varying sources of nutrition. Sukra says "The king should realize one-third, one-fourth or one-half from places which are irrigated by tanks, canals and wells, by rains and rivers respectively."<sup>1</sup>

On the whole Murshid Quli Khan's settlement was a grand success. Personal superintendence and constant vigilance made the system efficient and excellent. There was a rapid improvement in agriculture, a proportionate increase of revenue, a consequent abundance of grain and a cheapness of the common articles of consumption.<sup>2</sup>

#### CHAPTER IV.

##### State's Proprietorship of the Soil.

To people accustomed to the notion of absolute right possessed by an individual in his private property under the British Government, the State's proprietorship of land looks strange. It did look strange, indeed, to Bernier whose observations about it in the days of the later Mughals leads us to a discussion of State proprietorship of land.

The undisputed right of the Government as the sole proprietor of the soil was recognized throughout India prior to the advent of the British Government. But there are a few exceptions. In ancient India there is no perfect right of property vested in a single body in cases where there are village communities and permanent tenants,<sup>3</sup> and ancient Indian law recognizes no freeholders except in Malabar and certain other regions in the peninsula. Munro found documentary evidence as to the existence of private property in land in North Kanara going back for a thousand years, and in Carnatic Tanjore and Madura.<sup>4</sup> "In Canara, Malabar and Travancore,

1. IV. ii. 227. Prof. Benoy Kumar Sarkar's version. But the Telugu version by Puranapanda Mallia Sastri is more correct. *Vide* his translation, pp. 132-33.

2. See Prof. Sarkar's *Aurangzeb*, Vol. I, pp. 189-195. 3. Elphinstone, *History*, p. 79.

4. Gleig: *Life*, as quoted by Vincent Smith, *Oxford History*, Foot-note, pp. 562-3.

the land is held in absolute property by single individuals, subject to a fixed payment to the State." <sup>1</sup>

We may now pause for a moment for the further evidence that can be gathered from ancient Hindu sources which can easily refute the suggestion derived from a perusal of Elphinstone—that there is no perfect right of property vested in single bodies and that ancient Indian law recognizes no freeholders.

Sage Sukra observes as regards the origin of kingship: "(At first) when the world was without a king, and in consequence the people fled in all directions on account of diverse dangers that befell them, the Almighty (Brahma) created *for the protection of these*, a king with everlasting particles drawn from Indra, Anila, Yama, Arka, Agni, Varuna, Chendra and Kubera.

"Just as Indra, by his penance, is the lord of the animate and inanimate, and receiving sacrifices, protects well the world, a king, by virtue of his penance, becomes the lord of all and receiving tributes from his subjects carefully protects them." <sup>2</sup>

"The king is made by Brahma to be the servant of his subjects by reason of his receiving payments in the shape of tribute; and he is made lord in consideration of his duty to protect them." <sup>3</sup>

From these passages it is evident that kingship was of divine origin. The king, being created in an opportune time when anarchy was rampant and lawlessness was rife, was vested naturally with unlimited power over the lives and property of individuals composing the population of his dominion. Hence we may apply to such a system of government the term—Theocracy—excluding from the scope of the term the presence of a compact, co-ordinate and co-existent priestly class, like that of the mediæval church in Europe, since even though the Brahmins formed the chief power behind the throne, they never formed an *imperium in imperio*. Here we are now obsessed with one of the prominent historical paradoxes: How is it that the king became the sole proprietor of the soil with the summary disposal of his subjects' rights and lives since he was only Lord paramount, the 'Imperator Terrene', in a moment of chaotic circumstances? The probable answer may be that he collected round him certain loyal subjects and distributed among them the whole land and left it with them as a sort of perpetual usufruct. As civil government progressed and as people recognized the advantages of becoming peaceful and settled, they came to realize their vested interests and clung to them tenaciously—all the while paying some tribute to the regal fisc

1. Elphinstone, *History*, p. 76.

2. *Sukranitisara*, Ch. I, ver. 71-73.

3. *Ibid.*, I, ver. 188.

for the maintenance of the government and the king himself. Hence Sukra's seemingly incompatible appellations of the king being at once the servant and lord of men.

In the *Brihaspati Dharmasastra*, popularly attributed to the sixth or seventh century A.D., the following verse is found: "Should any such partner in trade happen to die through want of proper care, his goods must be shown (and delivered) to officers appointed by the king."<sup>1</sup> The reference is to the corporate and joint stock undertakings in ancient India. May it not suggest that right of the king over the private property after the person's demise?

But by the time of the seventh century private property seems to have been clearly taken cognizance of. In the *Sukranitisara* is a passage which draws a distinction between *Sahaja* and *Adhika* incomes.<sup>2</sup> "A *Sahaja* income is that which comes permanently to a person every day, month or year and which accrues to a person permanently every day, month or year either from his ancestral property or from his own work."

"That which is got from the ancestral property is called the best *Sahaja* income. *Adhika* or additional income includes profit, interest, fees for officiating in sacrifices, rewards, salary and other income got in a similar way." By this passage we can evidently illustrate the forthcoming definition of property since the mention and the distinction between *Sahaja* and *Adhika* income is an ample testimony to the point in question.

Mr. K. V. Rangaswami Aiyangar has clearly pointed out after careful investigation that "the ancient Indian State very decidedly recognized the institution of *private* property and *individual* proprietary right over all forms of wealth, including land."<sup>3</sup> Again, it points out in a note relating to the conception of an *ideal* prince by Kautilya and Machiavelli that according to their theories the king "should not unduly interfere with the property rights of his subjects, for 'A man will sooner forgive the slaying of his father than the confiscation of his patrimony!'"<sup>4</sup> From these passages it is evident that private property is one of the foremost objects of a man's longing and was fully acceded to by ancient Hindu kings, while they were recognized by principles of equity.

Coming to our *Ain* we find the perfect right of the ancient Hindus in private property. Even though Abul Fazl speaks of the escheatability of property in case of default in payment of State revenue<sup>5</sup> as was prevalent

1. *Brih.* XIV. 11, quoted in Majumdar's *Corporate Life in Ancient India*, p. 31.

2. II. 329 and 330-1.

3. Sir Subramanya Ayyar's Lecture 1914: *Consideration on Some Aspects of Ancient Indian Polity*, p. 72.

4. *Ibid.*, Appendix, p. 149.

5. *Ain.*, p. 745.

in the customs of the Hindus, he goes on with a detailed enumeration of the ways in which moieties of the property left behind by a deceased person should be enjoyed by those near and dear to him according to individual claims, ultimately leaving the king to enjoy it in case of the failure of proper persons to share it. From all these data gathered from different sources relating to different times it is evident that there are clear traces of the existence of private property and individual proprietorship in ancient India, even though they were at times eclipsed by the demands of the greedy kings.

"Who but a tyrant (a name expressive of everything which can vitiate and degrade human nature) could think of seizing on the property of men, unaccused, unheard and untried, by wholesale proscriptions by hundreds and thousands together? Who that had not lost every trace of humanity could think of casting down men of exalted rank and sacred function, some of them of an age to call at once for reverence and compassion—of casting them from the highest situation in the commonwealth wherein they are maintained by their own landed property, to a state of indigence, depression and contempt."

This passage<sup>1</sup> warns us against the injustice that can be caused by the caprice of an emperor who is not always infallible with the prerogative of Summary Disposal.

"Property in land seems to consist in the exclusive use and absolute disposal of the soil in perpetuity; together with the right to alter or destroy the soil itself where such an operation is possible."<sup>2</sup> But no such rights were recognized in the time of the Mughals, and even in the Hindu kingdom of Vizianagar the *Raya*, besides reserving to himself some crown lands such as the *Khalsa* of the Moguls, had the sole proprietorship of the soil and could deprive at will even eminent nobles of their assignments. Bernier points out that the sole right of the property as vested in the hands of the government makes the ryots lose their respect for private property "which is the basis of all that is good and useful in the world" and consequently proves injurious to the State itself. And Edmund Burke speaks with reference to the summary confiscation of Church property in France.

Exclaiming that "if this exclusive and baneful right prevailed, far different would be the real riches of the sovereigns of *Europe*, and the loyalty and fidelity with which they are served. They would soon reign over solitude and deserts, over mendicants and barbarians"<sup>3</sup> Bernier proceeds to a discussion of the rights of private property. Stating "that the absence of it

1. Burke : *Reflections on the French Revolution*. Edited by Selby, pp. 117-18.

2. Elphinstone : *History*, p. 79.

3. *Travels*, p. 232.

among the people is injurious to the best interest of the sovereign himself," and giving a graphic description of the appalling condition of the people under the grinding control of the timariots, Bernier proceeds: "The peasant cannot avoid asking himself this question: 'Why should I toil for a tyrant who may come to-morrow and lay his rapacious hand upon all I possess and value, without leaving me, if such should be his humour, the means to drag on my miserable existence,'—The Timariots, Governors and Revenue contractors, on their part reason in this manner: 'Why should the neglected state of this land create unrest in our minds? and why should we expend our own money and time to render it fruitful? We may be deprived of it in a single moment, and our exertions would benefit neither ourselves nor our children. Let us draw from the soil all the money we can, though the peasant should starve and abscond, and we should leave it, when commanded to quit, a dreary wilderness'"<sup>1</sup> and concludes his *Letter to Colbert* in the following manner: "Yes, my lord, to conclude briefly, I must repeat it; take away the right of private property in land, and you introduce, as a sure and necessary consequence, tyranny, slavery, injustice, beggary and barbarism; the ground will cease to be cultivated and become a dreary wilderness; in a word, the road will be opened to the ruin of kings and the destruction of nations. It is the hope by which a man is animated, that he shall retain the fruits of his industry, and transmit them to his descendants, that forms the main foundation of everything excellent and beneficial in this sublunary state; and if we take a review of the different kingdoms of the world, we shall find that they prosper or decline according as this principle is acknowledged or condemned; in a word, it is the prevalence of neglect of this principle which changes and diversifies the face of the earth."<sup>2</sup> Besides the appeal which they make to our sentiments, these passages have the indirect testimonies of various records of the age, and are corroborated by clauses in the *Furmans* granted by Aurangzib to resort to inducements and other encouragements where the peasants show overtures of discontent and resolve to fly away from their tenements. And we are already familiar with the ephemeral character of the Muslim society of the times when the fortunes amassed by the exertions of a single enterprising individual reverted to the State soon after his death, while the escheatability of land in case of default in the payment of revenue is a recognized fact.

The great importance attached by Bernier to the individual's right of property is just, and more is the description true as regards the conditions prevailing in the Mughal empire. But to-day the British administrators

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1. *Travels*, p. 227.

2. P. 238.

have actually recognized the elementary rights of individuals to enjoy the fruits of their labours and perpetuate their interests, so that the Bengal Tenancy Act of 1885, the Act of 1887 and other such Acts were passed making direct statutory legislations protecting the tenants from eviction and enhancement of rent, while giving them compensation for improvements and recognizing the principles of fixity of tenure and judicial rents.

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## GLIMPSES OF THE HISTORY OF ARTS IN MALABAR.

BY A. GOVINDA WARIAR, ESQ., B.A., B.L.

THE princes and chiefs of Malabâr vied with their suzerains, the Chêra monarchs, and with the later all-Kêraḷa rulers, in the liberal encouragement of culture, indigenous and foreign, religious and secular.

### The Pāli Chiefs.

The Chentamil classics of the Third Tamil Sangam Age, *i.e.*, the two or three centuries previous and subsequent to Christ, disclose the fact that the Chêra feudatories of the Pāli country—comprising north-east Malabâr, North Wynād and Coorg—were sufficiently alive to their responsibilities in the matter of patronizing erudite pandits and skilful poets, despite the fact that some of the Tamil poets were disposed to be somewhat unsympathetic in their estimate of the work of these recalcitrant chiefs occupying a comparatively less civilized tract on the borders of the Malayāḷi country. To mention only one instance, it will be seen from one of the anthology of lyrics composed during this period that Mamulanar, one of the celebrated poets of the Sangham, had visited this region and returned much gratified by his warm reception there.

### The Kolattiris.

The *Mūshaka Vamśa*, a Sanskrit Kavya composed some time in the twelfth or thirteenth century by one Atula, a favourite poet of a Mūshaka<sup>1</sup> or Kōlattiri king called Srikanḍha, records various donations by many of the earlier kings for religious and educational purposes.

The materials we have for the reconstruction of their literary history relate mainly to the grants of land and the rendering of pecuniary aid for the construction, repair and maintenance of temples, viharas and mosques by the Kōlattiris, and it has to be remembered in this connection that, in these early centuries when learning and literature were closely and almost inseparably mixed up with religion, the establishment of such permanent cultural centres really served the purposes of modern residential and teaching universities. They were beneficial even to a greater extent in co-ordinating religious with purely secular instruction. According to the *Mūshaka Vamśa*, Īśāna Varman (who lived probably about the beginning of the tenth century) was a great

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1. The Mūshaka country has been wrongly identified by Professor Monier Williams and many other scholars with Kêraḷa to the south of Quilon. A critical study of the *Mūshaka Vamśa* reveals that Mūshaka is really the country around Mount Deli in North Malabar, and is identical with Kolattunad or the country miscalled Kêraḷa in the latter part of the *Kêraḷōḷipatti*.

builder of Śiva temples, while one of his successors, Vikrama Rāma rendered inestimable service to the cause of learning, religious and secular, by preserving the Buddhist vihāra of Śrī Mūlavāsa from total destruction by sea and erosion.

Due to the liberal policy of toleration pursued by these monarchs, the Hindu, Jain and Buddhistic arts were allowed equal opportunities to flourish in peace and harmony. Valabha, one of the successors of Vikrama, is stated to have visited the prosperous city of Chellūra—identical with the Perumcellūr of *Kēralōlpatti* fame and with the modern town of Talippaṇamba in North Malabār. He worshipped in the Viṣṇu and Śiva shrines at Śambarapura or Tṛcchambaram, a suburb of Chellūra. Exceedingly gratified to find that the pious Brahmans were still attached to the study of the Vedas and Sastras and were duly performing their religious rites and ceremonies, he earned their lasting gratitude by ordering the repair of these pagodas at his cost. The same prince, it is related later on, bestowed lavish presents on the Buddhist teachers of Śrī Mūlavāsa and received their blessing.

That the Kōlattiri kings patronized also Muhammadan learning has been well recognized in history. Many of the ancient mosques in Talippaṇamba Dēli, Vaḷarpattanam, Dharmapattanam, etc., dating from the thirteen and fourteen centuries, owe their existence to the inexhaustible bounty of these sovereigns, one of whom is said to have even embraced Islam, a generation previous to the arrival of Ibn Batūta in the fourteenth century. These institutions afforded facilities, not merely for religious instruction—by means of explanations of the *Koran* and the commentaries on it—but also for an elementary education of a purely secular nature.

We shall now turn to the patronage extended to individual men of letters and talented scholars who gathered to the court of the Kōlattiris. The Kōlattiri, who governed the Kōlattunāḍ in the first half of the fifteenth century A.D., was Kērala Varma, at whose court flourished poets and commentators like Rāghavakavi, Śankara Wāriar and Rāma. Rāghava was a disciple of Śrīkantha Wāriar of Dēśamangalam and the author of a commentary on Vāsudēva Bhaṭṭatiri's *Yudhisṭhira Vijayam*. He was probably a colleague of another disciple of Śrīkantha, a Wāriar poet, and the writer of a Yamaka poem named *Raghūdaya* in eight Aśvāsas and of an *Ashtāṅgaḥṛdaya*. Śankara Wāriar was Rāghava's disciple and a contemporary of Pūnam Nambūtiri and Uddanda Śāstri.<sup>1</sup> The two Kavyas named *Śrīkrishṇa Vijayam* and *Sangraha Rāmāyaṇam* as well as a commentary on the *Āscharyachūdāmaṇi* of Śaktibhadra were produced by him. The second work was written at the instance of Āditya

1. This Śankara who has hitherto been taken to be a Mārār by the generality of scholars in Kērala was a Wāriar of Pallikkunnattu house near the Chirakkal Palace adjacent to Vadākara as proved by local inquiries made by the learned Pandit, K. Rāma Pisharoti, Tṛppunittura.

Varman, a predecessor of Kēraḷa Varma. Śankara Wāriar had many disciples one of whom was the author of a Kāvya named *Kṛishṇābhyudāyam*, while another pupil named Rāma has furnished us with a scholia on the *Nāgānanda* of Harsha.

Kēraḷa Varma's successors were no whit behind in their enthusiasm for keeping up their family tradition of lavish patronage of literates. His nephew, Rāma Varma, was an accomplished poet who ventured into the field of drama. The piece entitled *Chandrikā Kalāpidam* was the product of his genius.

The cultured princesses of the Kōlattiri family were once so charmed by the sweet rustic notes of the unlettered peasantry that they directed their efforts with success to the regeneration of the Vatakkenpāṭṭu or ballad form of Malayāḷam literature. It is to their laudable endeavours that we owe the evolution, from the *Taccōḷi* songs, of the *Gātha* (lullaby) form of lyrical composition so popular in Kēraḷa even at the present day. It was at their instance that Udaya Varma Raja of Kōlattunāḍ (the senior Raja of the Chirakkal family) requested his friend and courtier, Cheruśśēri Nambūtiri, to compose the whole of the tenth and most popular *skandham* of the *Bhāgavatam*, detailing Śrī Kṛṣṇa's adventures, in a new metre. This he did in such a masterly way that he has earned the lasting appreciation and gratitude alike of his contemporaries and posterity. For, this epoch-making work was composed in an entirely original and melodious metre admirably suited for the harmonious and lucid expression of the author's noble ideas and devotional sentiments, an achievement to which the musical intonation and the admirable adaptability of the Malayalam language itself contributed in no small measure. In this poem, this morning star of later mediæval Malayalam literature concedes to his royal master—who had befriended him from his childhood—the due meed of praise for nobly encouraging him in his literary efforts.

With the gradual disruption of the Kōlattiri family as a natural and inevitable result of the evolution of the five sthanoms or dignities—which claimed to divide among themselves all executive power—and also due to the extensive assignments of territories to the consorts of the ruling princes, a number of petty principalities were carved out of the Kōlattiri's dominions. This diminution in the power and status of the Kōlattiris appreciably limited the scope for patronage of arts in North Kēraḷa. Prominent among the new kingdoms were the Kaṭattnāḍ (Porlātiri) and Kōṭṭayam (Puranāṭṭukara) Rajas at whose courts arts and sciences were held in high esteem.

#### Katattnad.

Kaṭattnāḍ, the home of Tachōḷi Otēnan, the Robin Hood of Malabār, was a great centre of literary activity. Just as it was the country of the

most skilful athletes and men-at-arms in Malabâr, it was also the greatest nursery of the popular ballads. The Tachōlippāttūs afford us an insight into the interest which the rulers of Kaṭattnāḍ always took in the exhibition of feats of military skill and valour. It is no less important to note that most of the members of this house were savants who encouraged men of letters of talent. They were scholars who had drunk deep of the springs of knowledge, being well grounded in Tarka, Alankara, Nataka, Kavya and other sciences. One of them has composed in Sanskrit a Kathakalippāṭṭu called *Śatamukha Rāmāyaṇam*, in a graceful style, at once simple, clear and forceful. He is believed to have written it at the beginning of the eighteenth century, the date of his demise being denoted by the Kali chronogram "*Dēvaiṣṇāṭai-sēvyaṁ*".

A successor of his in the early nineteenth century A.D., popularly known as the Appan Tampurān, is the author of an astrological treatise, the *Shadratnamāla*.

#### Kottayam.

The Kōṭṭayam princes are believed to have inherited from Harischandra Perumāl, the traditional founder of their family, a love of arts and sciences and a disposition to spend profusely on the votaries of the Goddess of Learning. The members of this royal house were themselves well-read Sanskrit scholars proficient in one department of learning or another. Owing to the paucity of reliable materials, and also to considerations of space, we have perforce to confine ourselves to some of the greatest literary figures that belonged to this Swarūpam, leaving it for future research to fill up the blank spaces and amplify the account.

Among the Kōṭṭayam princes that have sedulously fostered the growth of literature and learning, two brothers stand head and shoulders above the rest. Of these, Kēraḷa Varma, the elder brother, was the worthy descendant of a very learned princess adopted from the Perumpaṭappu Swarūpam. While he was ruling his native country, he was called to the regency of Vēṇāḍ in the troublous times of the able Dowager Princess Umayamma Rāṇi (858 M.E.). It is impossible to evaluate correctly the laudable services he has rendered to literature and arts during the perilous years of a bloody revolt and a devastating invasion by oppressive Mogul hordes. His monumental works called *Vairāgyachandrōdayam* and *Vālmīki Rāmāyaṇam* in the *Kūlippāṭṭu* (the parrot's warble) form—written while he was at Trivandrum—certainly deserve better of the public. Due to his untimely and tragic death in 1688, the last work—better known as *Kēraḷa Varma Rāmāyaṇam*—had to be left incomplete, the poet having been able to proceed only up to the *Sundara Kāṇḍam*. During his time, the Valia Kōikkal Palace at

Trivandrum which was constructed by him, and which saw the production of this poem, was the resort of many a renowned man of letters and student of the Sastras desirous of earning recognition and reward at his hands.

A devout *bhakta* of Śrī Pōrkali Bhagavati, whom he had propitiated by his unexampled piety and unparalleled constancy, he attributed to her all his success in the literary field. A profound Sanskrit scholar of rare poetic genius, he was also a capable statesman gifted with unerring political foresight and brilliant power of organization, besides being a distinguished warrior endowed with surpassing courage and military skill. He had a romantic career in the region of war as in literature, and he is justly styled the Sir Philip Sydney of Malabār.

His younger brother, the Kōṭṭayam Tampurān of *Āṭṭakkatha* fame, was also a cultured patron of letters, highly proficient in Sanskrit. Vyakarana and Nataka were his *forte*. The most important of his productions are the *Kṛmmīra Vadham*, the *Nivāta Kavacha Vadham*, the *Baka Vadham*, and *Kalyāṇa Sougandhikam Āṭṭakkathas*. All these draw the material for their plot from the *Āraṇya Parva* of the *Mahābhārata*. This sovereign is also the author of a *prakarana* in *Kilippāṇu* called *Mōkṣadāyaka Prakaraṇam* which follows Kṛṣṇa Mīśra's *Prabōdhachandrōdaya* in Sanskrit.

At the hands of this royal poet *Kathakaṇi* attained the acme of perfection. The conventional portions of his *Āṭṭakkathās* were so inimitable that they were naturally absorbed into the similar productions of subsequent generations of playwrights who were glad to allow such passages, affording little scope for display of poetic talents, to adorn their works. This observation applies especially to the *Tōḍayam* of the *Katha* which correspond to the *Nandis* of the Sanskrit drama. All his successors in the art, except the Kārtika Tirunāl, Maharajah of Travancore, have allowed his *Tōḍayam* to be assimilated with their otherwise original *Āṭṭakkathās*.

The absorbing interest he took in the encouragement of the now decaying art of *Kathakaṇi* will be seen from the fact that he had all his plays acted under his personal supervision and at his expense, and that he took great pains to make them a success.

He was a born actor who once surprised and delighted the then Zamorin by his ability in that art even at the age of fifty. It is said that the Zamorin who patronized these performances had, on many occasions, to seriously disapprove of the acting of Ūrvaśī in the *Nivāta Kavacha Vadham*, as the actors could never enter into the spirit of that character. The Kōṭṭayam Tampurān, on hearing this, repaired to the place *incognito* to witness the *Kathakaṇi*, and himself acted the part to perfection. The Zamorin who was keenly watching the performance shrewdly discerned that none but the

author could have acquitted himself with such credit. He asked him if he was not the Kōṭṭayam prince, and, on knowing the truth from his lips, he, to his extreme gratification, entertained the prince in right royal splendour.

The name of this prince has been confounded with that of Kēraḷa Varma of the Paṭinjāre Kovilakam, familiarly known as the Paḷhaśśi Raja (the Pychey Raja of the English), the last great light of this noble family, a chief who made a bold and final bid for independence, persistently resisted the choicest British soldiery for well-nigh nine years and gallantly perished in his attempt with his chosen band of Kuṛichi highlanders of Wynād. He was also a refined scholar and patron of arts though he was mostly pre-occupied with the task of beating the English and securing his independence. The fate of this national hero has been immortalized by his grateful subjects in a series of ballads which have secured for themselves a distinguished place in the literature of the land.

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## STUDIES IN BIRD-MYTHS, No. XXV—ON A LUSHAI-KUKI ÆTIOLOGICAL MYTH ABOUT THE KING-CROW.

BY PROF. SARAT CHANDRA MITRA, M.A., B.L.

THE King-Crow (*Dicrurus ater*) is one of the commonest birds of the Indian country-side, and belongs to the Drongo family. It is called *Finga* in Bengali and *Bhucheng* in Hindusthani. It may be readily recognized by its jet-black plumage and scissors-like forked tail. It usually sits on telegraph wires from which it preys on insects which are flying about. Where there are no telegraph wires, it will make use of the dead branch of a tree or of a cow's back for sitting upon, for it is always in need of a perch that will afford it a clear outlook and provide it with ample space for performing its aerial evolutions about it. Occasionally it departs from its usual habit of sitting upon a perch and sits about on the ground as it sometimes does on the Calcutta *Maidan*. By sitting upon the ground it stoops low from its high family tradition, for, the King-Crow is as much given to pride of place as the green pigeon is. "Concerning the Green Pigeon, native traditions aver that when it comes down to drink it carries a twig in its feet, lest its enemies should say that it had ever deigned to leave a perch."\*

The King-Crow is remarkably active in performing aerial evolutions. By reason of possessing this activity, it is able to maintain over birds, great and small, that authority "which the Deccanis have neatly expressed by calling him *Kotwal*, superintendent of police. Armed with very punishing beak and claws, he is a terror to evil-doers like the kite and the crow, who cannot catch him, much as they would like to, but also it is to be regretted, at times he is a nuisance to the more peaceful portion of the bird-community, robbing them when he can, of their insect prey, although perhaps he feels that this is merely an exaction of a tribute due to his energetic exertions against the criminal classes which the public would charlishly withhold."†

The following interesting ætiological myth about the evolution of the King-Crow is current among the Lushai Kukis who are a Mongoloid people inhabiting the rocky fastnesses of the hill-tracts to the east of Assam. The Lushais believe that whenever an eclipse occurs, a ghostly being called by them the *Awk*, devours the sun. It is for this reason that on the occasion of eclipses these people get very much excited and beat drums for the purpose of scaring away this being who devours the great luminary. They further assert

\* *Vide The Birds of Calcutta*, by Frank Finn, B.A., F.Z.S., M.B.O.U., Calcutta: third edition. Thacker Spink & Co., 1917, pp. 34-35.

† *Op. cit.*, pp. 35-36.



that, on one occasion, the *Awk* swallowed the sun so completely that a great darkness overshadowed the world. This fearful time is called by them "Thimzing, i.e., the gathering of the darkness" during which many terrible things occurred. Every animal killed in the course of hunting became resuscitated, dry wood regained its power of growth, even stones became endowed with life and put forth leaves. As it was pitch dark, men and animals could not see each other; and therefore tigers went about prowling and bit men, trees and stones. It is in this time of "Thimzing, or the gathering of the darkness" that a general transformation took place, and men were metamorphosed into animals.

"The chiefs of those days were transformed into hornbills of to-day, whose bills represent the bamboo rod for stirring rice while cooking; *but another version is that the chiefs became King-Crows whose long tail-feathers the chiefs value much and wear as plumes.*"\*

[For the purposes of the subject-matter of this paper, I am not concerned with the other transformations that took place during the time of 'thimzing'.]

This Lushai Kuki myth about the evolution of the King-Crow illustrates in a remarkable degree a leading trait of the mind of primitive man. It is a cardinal doctrine of the philosophy of the Lower Culture that there is no distinction between man and beast, and that the savage mind is quite unconscious of the line of difference that exists between these two great divisions of created beings. To the savage, beasts sometimes talk like human beings, and human beings very readily become beasts. Traces of this savage belief still survive in modern folklore in the shape of the European belief in the *werewolf*, that is to say, of a human being who is a man by day-time, and a wolf during night, and in the Indian and Malayan belief in the *wertiger*.† Similarly Lushai Kukis appear to be possessed of the same belief in the interchangeability of man and beast, for, they have invented the myth to the effect that in the course of the darkness that followed the eclipse, the chiefs were readily metamorphosed into King-Crows.

It will not be out of place to mention here that the Southern Chin tribes of Burma believe that they are descended from the King-Crow which is their totem. They neither kill nor eat this bird which is believed to have hatched "the original Chin egg."‡

\* *Vide The Lushai Kuki Clans*, by Lt.-Colonel J. Shakespeare, London: Macmillan & Co. Ltd., 1912, pp. 92-93.

† For a fuller discussion of this point, *vide The Handbook of Folklore*, by C. S. Burne, London: Sidgwick & Jackson Ltd., 1914, p. 40.

‡ *Vide The People of India*, by Sir H. Risley, K.C.I.E., C.S.I., 2nd edition, Calcutta & Simla: Thacker Spink & Co., 1916, p. 104.

# STUDIES IN PLANT-MYTHS, No. III—ON A BIRHOR ÆTIOLOGICAL MYTH ABOUT THE PINNATE LEAVES OF THE WILD DATE PALM.

BY PROF. SARAT CHANDRA MITRA, M.A., B.L.

THE wild date palm\* [*Phoenix Sylvestris* (order Palmae)] is an erect tree possessing a rounded crown of large greyish green pinnate leaves measuring seven to fifteen ft. long. It is known in Bengali and Hindi as the *Khajur* tree. Its stem is covered with the persistent bases of the petioles. This palm is commonly found in various parts of India either in a cultivated or wild state. It grows in gregarious groups.

This species is largely cultivated in Bengal for the sake of its sweet juice which is obtained by notching the base of the crown of the tree. By boiling down this juice and by evaporating the moisture thereof, date sugar is manufactured. The chief seat of date sugar manufacture is the presidency districts of 24 Parganas, Nadiya and Jessore. In Bengal and Bihar, an intoxicating beverage is manufactured by fermenting this juice which is largely drunk by the poorer classes of the people of these two provinces. The fruits of this palm are edible though they have large stones, but a lesser quantity of that sweet pulp which makes the fruits of *P. Dactylifera* of Egypt and Arabia so valuable an article of food. It, however, forms a staple article of diet of the people inhabiting the desert districts of the Punjab where it is known by different names according to the method by which it is preserved, split, dried, boiled in oil and in various other ways. The farinaceous substance found at the base of the crown of *P. Sylvestris* is edible and is prescribed as a delicate food for invalids. Its leaves are woven into mats and baskets. The fibrous petioles of the leaves are suitable for the manufacture of paper and cordage. The kernels of the fruit are medically prescribed for the purpose of allaying thirst. The gum called *huchumehil* is obtained from the palm.

The Birhors are a small tribe of Dravidian aborigines who live in the different districts of Chota Nagpur. The numerical strength of this tribe is so small that in the Census of 1911 their number in the district of Hazaribagh was computed at 1,024, in that of Ranchi at 927 and in the whole province at 2,340. They have no fixed dwelling places but wander about from forest

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\* For the silvicultural uses of the Wild Date Palm, vide *The Silviculture of Indian Trees*, by R. S. Trapp, M.A., I.F.S. In three volumes, printed at the Clarendon Press, Oxford, 1921, Vol. III, page 967.

For the economic uses of the Wild Date Palm, vide *A Handbook of Indian Products*, by T. N. Mukherjee, Calcutta, 1883, pages 155-56.

to forest, subsisting on the game and the monkeys which they kill, and earning a precarious livelihood by the manufacture of drums and the sale of jungle products. They speak a language which is closely allied to Mundari. Their name *Birhor* signifies "*junglemen or foresters*". These two facts combined with the fact that their name includes the word "*Horo*" which the Mundaris apply to themselves exclusively, indicate that the Birhors are an offshoot of the Mundari race which has adopted a nomadic life in preference to that of a cultivator. Their religion is a strong mixture of Animistic and Hindu beliefs. But they try to harmonise these two antagonistic faiths by assigning to the mother-goddess Devi, the chief place in their Pantheon, and by constituting their Animistic goddesslings to be her daughters and grand-daughters.

By living in constant contact with their Hindu neighbours, they have embodied in their own tribal beliefs and traditions the whole Hindu legend about Rāma and Sītā. This they have done so completely that their legend may be said to be the Birhor version of the *Rāmāyana*.

Being dwellers in the forests of Chota Nagpur, they observed the pinnate leaves of the wild date palm. Being ignorant of the laws of biology, they were unable to explain to themselves how these pinnate leaves were evolved. So the primitive myth-maker of the Birhors invented the undermentioned ætiological myth to account for the evolution of these leaves. In doing so they based this myth on an incident in Rāma's life which sets forth in a strong light Rāma's filial piety, devotion to truth and spirit of self-sacrifice.

The myth is as follows:—After Raja Dasaratha had exiled Rāma, Lakshmaṇa and Sītā, they wandered about in the forest. On one occasion, they built their *kumbā* or leaf-hut under a wild date palm which had large and broad leaves in those days and which therefore effectively protected them from the rain-water. Realizing that they had been sent to the forest to undergo sufferings and troubles, he ordered his brother Lakshmaṇa to shoot at these broad leaves with his bow and arrows. This the latter did, and the large and broad leaves were consequently split up into thin narrow strips. Ever since the leaves of the wild date palm (*Phoenix Sylvestris*) have become *pinnate*.

The tree no longer protected Rāma, Lakshmaṇa and Sītā from the rain-water and thus they had to undergo great sufferings.\*

This myth, therefore, illustrates, in a striking manner Rāma's self-sacrifice and self-mortification.

\* *Vide The Birhor*, by Rai Bahadur Sarat Chandra Roy, M.A., M.L.C., Ranchi, 1925, pp. 411-12.

## NOTES.

### A Note on Gunavayil Kottam.

THE monasteries founded in ancient Kerala counted among them some of the greatest and most ancient seats of culture according to recorded history, just as the world-famous viharas of Northern India were the most famous universities of ancient times. Some scholars have ascribed the origin of these viharas of Kerala to the Chinese traders who settled in the country, but the more reasonable view seems to be that their arrival and continued residence in Kerala accounts only for the prosperous existence of these institutions in later centuries. The Mauryan Emperor Aśōka makes the first mention of the spread of his faith into Kerala, and this, according to Mr. A. Krishna Pisharoti, is contemporaneous with the sway of the Keralapurushas or Rakshapurushas, referred to as Kēraḷapurusha in Pali and wrongly rendered into Kēraḷaputra in English so as to obliterate though unconsciously one of the most important aspects of ancient Kerala history. The establishment of viharas may, therefore, be legitimately taken to have been co-eval at least with the reign of Aśōka the Great.

In any case, we have indisputable evidence to show that the premier vihara of Kerala came into existence in the earlier half of the first century B.C., in the time of Neḍum Chēral Āthan I. This Perumal is said to have welcomed a missionary named Dharmasāsanān from Ceylon. His discourses induced one Kōvalan, who was one of his courtiers and a merchant prince besides, to embrace Buddhism. This Kōvalan who predeceased the hero of the *Chilappatikāram*, his namesake and descendant, nine generations earlier, constructed a vihara to the east of the Chēra capital, about eight miles to the north of modern Tiruvanchikkulam. This Chaitya was named Guṇavāyil Kōṭṭam (literally the building at the eastern mouth or gate of the capital) in Trgguṇavāmatilakam (Trkkaṇāmatilakam) or Trgguṇavāpuram (Trkkaṇāpuram) of later centuries. This has been described by foreign traders as one of the beautiful sights in the whole of India.

This was the corona of Kerala culture in the days of the Tamil Sangham. In the time of Chenguṭṭuva Perumāl, Iḷankō-Aḍigal, his brother, was residing in this vihara and guiding the deliberations of the *vidvat parishad* that assembled here. Though the vihara of Tiruvanchikkulam formed a fitting and princely habitation for this royal anchorite, he preferred to live in Guṇavāyil Kōṭṭam, which was in a sequestered suburb of the capital and outside it.

We shall here notice only the significant fact of Maṇimēkhalai's visit to this place. The *Maṇimēkhalai* describes how its heroine had to resort to the capital of Kerala and to its suburbs, to learn directly from the preachers of the various religions and exponents of different philosophical systems, the basic canons of their faith, so that she might be enabled to judge for herself the comparative strength and weakness of each creed. After worshipping in the temple of Cranganur dedicated to Kaṇnaki and becoming an ascetic, she is said to have

studied under the preceptors of the Vēdic, Śaivite, Vaishṇavite, Ajīvika, Nigrāntha, Sāṅkhya and other systems of belief, and attended the meetings of the *yōgam*s composed of these professors and visited their temple-residences. There is, therefore, some reason to believe that Maṇimēkhalai repaired also to this premier centre of culture.

It has also to be stated that it was in the same suburb that the Aimperum-kuḷūm or the Panchamahāśabha or the five great assemblies that were associated with the Perumāls of Kerala met and conducted their deliberations.

It will thus be seen that Guṇavāyil Kōṭṭam was one of the most important places in the Perumāḷ capital and of Kerala, whether from the political, religious or cultural point of view.

A. GOVINDA WARIAR, B.A., B.L.

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## REVIEWS.

### The Lady of the Lotus (Rup Mati).

BY ĀHAMAD-UL-UMARI.

Translated by L. M. Crump, C.I.E. Oxford University Press. 18s. net.

AMIDST diverse legends and fables current in Indian folklore and tradition, not unoften is it possible to get a story founded upon historical fact: and diligent research will always meet with its reward. One such is the result of the assiduous labour of the Hon'ble Mr. L. M. Crump, C.I.E., quite recently acting British Resident in Mysore. It is a strange tale of faithfulness, though frequently met with in Indian history and tradition, headed the Lady of the Lotus, Rūp Mati, Queen of Māndu by Āhamad-ul-Umarī, Turkoman. Mr. Crump has translated it into admirable English, with introduction and notes and has further given us in elegant English verse twenty-six poems attributed to Queen Rūp Mati. The work is well illustrated and excellently got up by the Oxford University Press, London. An exhaustive bibliography is given at the end. The whole work is fittingly dedicated to the late Maharaja of Dhar, Major His Highness Sir Udaji Rao Puār, a Mahratta prince who worthily filled the ancient throne and capital of his illustrious Paramāra ancestors and who was an oft-time host and all-time friend of Mr. Crump.

Rūp Mati is a historical figure belonging to the early sixteenth century of the Christian era. T'hān Singh, according to the introduction, was a Rajput of the Rāthor clan and lord of Dharmapuri in the Rewa valley. He and his ancestors had served the kings of Māndu faithfully. His daughter, Rūp Mati, was fourteen years of age, beautiful and accomplished. She had gone to a pool in the forest with her 'bin' and was there singing the sweetest songs of spring. Bāzid Khān *alias* Bāz Bahādur, son of Shujā'at Khān, after the father's death, destroyed his brothers and crowned himself sole king of Mālwa. He was later defeated by the queen of the Gonds, Durgawati and then left Shujāwalpur and retired to Māndu. He was accomplished in the science of music and was a singer without rival; and his company was a bevy of nightingales in a garden of roses.

On the day Rūp Mati was singing in the forest pool, Bāz Bahādur rode to hunt in the vale of Rewa and there he saw Rūp Mati and protested his love to her. She, however, refused to marry him. For, 'Never, never will I marry thee until the waters of Rewa, the Goddess of worship, flow through thy royal city there on high.' The king retreated. Her father, on hearing from her mother about this love episode, chastised and kept her a prisoner. In the course of the night, Rūp Mati had a dream in which the River Goddess appeared and also Bāz Bahādur. By dawn, he had also attacked the citadel and defeated Thakur. The Rajput pride bowed to barbarian might; Rūp Mati rode with a chosen knight to Māndu; and there married Bāz Bahādur. A country palace was built for her

near the spring of Rewa. Bāz Bahādur was later given to wine and women. She died at the age of twenty-one. As Abul Fazl says in the *Akbarnama*—'her faithful blood became aglow, and from love to Bāz Bahādur she bravely quaffed the cup of deadly poison and carried her honour to the chambers of annihilation.' As for Bāz Bahādur, his heart was true to his perfect Lady of the Lotus and he was laid by her side on the island at Sārangpur.

The patient toil of the Translator in rescuing the manuscript of Āhamad-ul-Umari, which somewhat differs in details from the above account and the verses attributed to Rūp Mati, show, as described in the text, how difficult and arduous is the path of the research scholar generally, and particularly in India. Had it not been for the high and influential official position of Mr. Crump and the lasting friendships in high places and low he has been able to secure in the course of his official career, the story of Rūp Mati might have been irretrievably lost to us. In Mālwa, his curiosity was roused by the interesting and entrancing legends and the stories of faithfulness of Rūp Mati he heard, and inquiries and diligent research soon put him on the right track. Pandit Balabhadra Sinha was able to help him to recover eight verses attributed to Rūp Mati, and later by a strange coincidence, Mr. Bashiruddin of Bhopal secured for him fragments of a copy of the Persian Manuscript of Āhamad-ul-Umari, of which we have an admirable translation in the volume under review. The authenticity of the manuscripts is placed beyond all doubt and the additions and emendations to the original text of Āhamad-ul-Umari are well marked by the scribe: and more, the history of the copy itself to its latest possessor is well traced.

The story of the Lady of the Lotus was written, it is said, in the forty-third year of the reign of Sultan Jalāl-ud-din Akbar Shāh, corresponding to the year 1599 A.D. The copyist Mir Ja'far Ali dates his copy 1060 A.H. *i.e.*, A.D. 1653. The author of the story, Āhamad-ul-Umari was almost contemporary with the events he relates. His informant was one Sulaiman Khān, a follower of Shujā'at Khān and a groom of the bed-chamber during the time of Bāzid Khān and he had seen the happenings with his own eyes. It is further stated that he was present at Rūp Mati's last singing and also at the final pleasure party given in Bāz Bahādur's palace by the conqueror, Ādam Khān, in the belief that Rūp Mati had yielded to his importunate lust.

Mr. Crump's translation of the story as contained in the original manuscripts may be stated thus:

Rūp Mati was the daughter of Jadu Rai and perhaps of Brahman extraction. Bāz Bahādur was a son of Shuja'at Khān, a dependant of Sher Shāh. Sārangpur, where lived Rūp Mati and her father, was a singularly beautiful town, given as a Jagir to Bāz Bahādur. The Jagirdar was quite friendly with Jadu Rai. The latter had, one day, invited Bāz Bahādur to a banquet in his place. On that occasion, the latter espied Rūp Mati and fell in love with her. There were several obstacles in the way of pursuing this love episode; chief of which was the remonstrances of Shuja'at Khān, his father. He ordained: Let this pearl of



advice be stitched in the skirts of his (son's) madness. The subjects of a king are like unto his own children. Justice and purity of heart are the foundation stones of government, and the rock of its establishment is the confidence of the subjects. In the loss of it follow decline and misery, and the masters of truth know it for the basis of stability. To kings with the greatest force doth the rule apply, that their personal desires be not barriers to justice. Thus ended for the time the love of Bāz Bahādur for Rūp Mati. His father, however, died within about six months and thereafter, he became ruler of Mālwa. Then, he summoned Jadu Rai to his court and offered him the Jagir of Sārangpur, demanding in return the hand of Rūp Mati. Jadu Rai complied and Rūp Mati joined the harem of Bāz Bahādur. No marriage ceremony appears to have taken place and Rūp Mati was not converted into Islam. Nor did she assume any Muhammadan name. Was she a Brahman? Was she merely a dancing girl? In one place, she says, 'I have sung in his assembly'. Ferishta is inclined to describe her as a courtesan. The author of *Ma'āsir-ul-Umara* calls her a songstress. According to *Akbarnama* she was a part of his seraglio or singing women. She is, however, referred to as her honour. The *Tabagāl-i-Akbārī* calls her 'his favourite wife'. It is nevertheless curious that Brahmans of Sārangpur should know so many of her songs and verses. These also indicate their author to be an educated Brahman lady rather than a dancing girl. Be these what they may, the pair loved each other exceedingly well and they were for a time drowned in an ecstasy of delight. In the course of the rendering occur marvellous passages describing the beauty of Rūp Mati, in the minutest details, her sweet temper and her intelligence. Whether mistress or legitimate wife, she exercised a profound influence and the government danced at her finger tips. The king's pleasures and luxuries, however, were his undoing. The old adage that to the stability of empire, there is no greater danger than the negligence of its king, once again proved true. Ādam Khān, the Mogul, came like a storm of wind and rain and conquered Sārangpur. He asked Rūp Mati to transfer her love to him. That chaste lady opened her lips to advise him and plainly said that it did not become the glory of the conqueror thus to seek disgrace the name and fame of the broken Afghan. He attempted force. She fled from the capital disguised as a flower-seller. Through a thousand difficulties she made her way across the intervening country but she was pursued. Her brothers failed to rescue her and she was ultimately brought to Māndu. Overtures were again made to her to join Ādam Khān's harem. She was even brought to the palace and threatened. She said, "My heart is wearied of these thy proffers. There is no hope that, what I gave to Bāz Bahādur, the same I should give unto thee, above all, who dost commence thy wooing by the murder of my brothers." Attempts continued to induce her to join Ādam Khān and she finally obtained three days' time to give a reluctant consent. On the third day, after a grand feast, the governor entered the chambers of Rūp Mati to find that she had swallowed powdered diamond and died. Thus she died, a martyr to faithfulness and an ensample to sect of lovers. Truly women hold a rank in love which men cannot attain. Woman is the mother of man and the centre of all life. At

home, her word spelleth comfort of heart and faithfulness withal. Love is her special attribute.

'In love who is braver than a Hindu wife?  
Her lamp extinguished, death is one with life:  
And like a moth she seeks the burning flame,  
And faithful ever, quits this world of strife.'

Let tyrants beware:

'O tyrant! fear the groans of the oppressed!  
For to the door of God are they addressed,  
And at the hour of prayer the doorway parts,  
For his acceptance to refresh their hearts.'

After a short dissertation on the transmigration of souls and comparing it with the Islamic doctrines, Mr. Crump proceeds to give in beautiful verse an English rendering of Rūp Mati's songs. Rūp Mati's faithfulness crowned her with immortality, for she was prepared through life to go with Bāz Bahādur, weal or woe. There is just space for a couple of verses to indicate the excellence of the thoughts and the beauty of translation.

I. 10th verse. Thou art the whole of life to me,  
And separation from thee death:  
Only the memory of thy face  
Keeps me in breath.

11th verse. The message, that I fain would send,  
No letters, known to man, can spell:  
Thy loving heart alone can read  
What mine would tell.

23rd verse. Worldlings, who yearn for wealth and fame,  
Stray quickly from Love's path aside  
And to their wandering footsteps then  
Take self for guide.

XIII. The sin that stamped on Indra stigmas vile,  
The sin that sought Draupadi to defile,  
The sin that strained the moon's once stainless face,  
The sin that left no scion of Rāwan's race,  
The sin that set at Keechuck fierce Arjun,  
The sin that blighted Shispal's marriage moon,  
The sin that burnt Bhasurāsūr's life away,  
Is now a toy, wherewith men lightly play.

Thus we see, whether all the songs attributed to Rūp Mati be hers or not, the simpler and more passionate poems are hers. It is quite possible, later bards may have mingled flowers of lesser fragrance with hers but we owe it to Mr. Crump and his enthusiasm and undying interest that the romance of the tale of Rūp Mati and the inherent beauty of some of her songs and verses are brought to light.

S. S.

## Mahabharata.

(CRITICAL EDITION)

Published by the Poona Bhandarkar Institute.

THE publication by the Bhandarkar Oriental Research Institute, Poona, of an edition critically examined for the first time, may be dubbed as an event of national importance. This epic, while it is a repository of the wisdom of the past, embodies also the struggles and vicissitudes of the old Aryans in their attempts to colonize the land and spread enlightenment among the several barbarous hordes in occupation of the country at the time. The epic also appeals to the national pride of the present-day Hindus inasmuch as in this work they find a realization of their desires and aspirations in the conditions in which they are now surrounded. The magnitude of the task undertaken by the editors headed by Dr. V. S. Sukthankar may be imagined from the fact that the publication of the II fascicle, consisting of seventy-five pages, has been issued about a year after the I fascicle was issued consisting of sixty pages. Dr. Sukthankar and his coadjutors have been able to collect a large number of manuscripts and a glance at the reading adopted in the text and the readings given in the notes indicate what amount of patience and scholarship are needed to hit upon the right reading. The Mahabharata, as is well known, is an heirloom which the Hindus have inherited from the hoary past and the reverence with which the work has been looked upon during all these Ages may be said, to some extent, to have led to a variety of textual temperings to secure support from the Mahabharata for each set of creed or dogma that came to be in the ascendant from time to time. It is clear that much liberty has been taken with the text of the Mahabharata, not to speak of the numerous interpolations introduced in it. Of course, it is easy to find fault with the reading given by Dr. Sukthankar in the text as edited by him; for the actual selection of a reading often depends upon one's temperament and knowledge at the time. Even where it is clear that a different reading would have been better, it should be remembered that once the text is before the public that the devoted band of the editors will feel more assured in incorporating a different reading later in a subsequent edition backed as such a reading will be by the united support of a large number of outside scholars. The task of Dr. Sukthankar deserves therefore every encouragement and congratulation from the public and the sympathy of every scholar. A task of this magnitude can hardly be regarded as an individual concern and we are not surprised, therefore, that the Governments of Bombay, Madras, Burma and Baroda, the University of Bombay and other distinguished donors including the cultured Chief of Aundh have readily come forward to give their patronage to what may, in these days, be regarded as a work of cosmopolitan interest and of international importance. We hope that other donors will also come forward and extend their help to this undertaking.

M. S.

## Mysore Desada Vasthu Silpa

### PART I

(Architecture and Sculpture of the Mysore State.)

BY B. VENKOBÄ RAO, ESQ., B.A.

Bangalore Press.

A SERIES of very interesting articles in Kannada were contributed to the 'Prabuddha Karnataka', the organ of the Karnataka Sangha in the Central College, Bangalore, by the writer and it is gratifying to observe the series are still continuing. A number of these articles are put together and published in book form by the Karnataka Sangha, as Part I.

Mysore is well known for the excellent state of preservation of its architectural remains, beginning perhaps from even the days of Asoka, and, we may add, the golden age of architecture in Mysore, if not in all India, was the Hoysala, once mis-called Chalukyan. Good samples of other styles of architecture also exist side by side, but the most famous style of architecture for which Mysore is particularly noted is the Hoysala. It is, therefore, very fitting indeed that the paper cover of the book should contain the figure of Sala and the tiger, the national Hoysala emblem, drawn by a well-known painter of the present day. Mr. Venkoba Rao has given us a description of select temples of the Hoysala architecture, 38 in number, profusely illustrated (48 illustrations) from authorized and accurate and well-focussed photographs and the whole is preceded by an introduction on Hindu architecture in its varying phases.

Several of the temples which are described in the book are objects of visit by tourists to the State and shining examples of the Hoysala art wherein are exhibited the alfa to omega of architectural design and sculptural beauty. We congratulate the author on his very successful attempt in giving in a very easy and intelligible form a description of these temples. We trust the other volumes in the series will be of the same absorbing interest.

S. M. S.

Kalidasa Mahakaviyu Sringararasavannu Chithrisiruva Bagé.

(ಕಾಳಿದಾಸ ಮಹಾಕವಿಯು ಶೃಂಗಾರ ರಸವನ್ನು ಚಿತ್ರಿಸಿರುವ ಬಗೆ.)

BY C. K. VENKATARAMAIIYA, M.A., LL.B.

THIS attractively got-up little book contains the substance of a lecture delivered by the author in Kannada on the Kalidasa Day in February 1927 at the request of the Bangalore Amateur Dramatic Association. The same appeared in the columns of *Rangabhumi*, the monthly organ of the Amateur Dramatic Association. In this lecture, the author has attempted to show very briefly how Kalidasa has depicted the erotic sentiment in his Kavyas and Natakas. The several types and phases of this sentiment in *Raghuvamsa*, *Kumarasambhava*, *Malavikagnimitra*, *Vikramorvasiya*, *Shakuntala* and *Meghadutha*, have all been dealt with in a clear but careful manner.

The sensual Agnivarṇa, the subtle Aja, the inimitable Shakuntala, the ideal Seetha, the selfless Uma, the suffering Yaksha—all these have been discussed from several points of view to show Kalidasa's versatile genius, his descriptive power and clearness of exposition.

Though each topic has not been dealt with as exhaustively as the selfless love of Uma towards Siva, the book gives a comprehensive account of the way in which the erotic sentiment has been dealt with by the great poet. His heroines are far superior to his heroes and the poet seems to have created them with a definite purpose. Most of his heroes are married men falling in love with maidens in spite of their living wedded wives.

The date of Kalidasa is still as unsettled as the place of his birth. It is not definitely known which of his works was first written and which last. Critics of the type of Mr. C. K. Venkataramaia may perhaps be able to decide tentatively, on the strength of their internal evidence, the order in which Kalidasa wrote his works. If any decision be possible, perhaps the evolution of the erotic sentiment in the poet's works may be traced. This will help the readers to enjoy his works better.

The author is a good great scholar in Kannada and Sanskrit and has brought out the significance of the several types and phases of love in the works of Kalidasa. It is sincerely hoped that he will publish many more books of the kind in his own simple but elegant and dignified style for the benefit of the Kannada people.

A. N. N.

## Rannakavi Prashasthi.

(ರನ್ನ ಕವಿ ಪ್ರಶಸ್ತಿ.)

Published by the Mysore University Union, Mysore. Price Rs. 1-4-0.

THIS excellently got-up volume contains fifteen learned articles besides portraits including those of His Highness the Maharaja, Ajitathirthankara, Janmabhisheka. Among the contributors, the names of Messrs. B. M. Srikantia, S. V. Ranganna, M. A. Ramanuja Iyengar, M. A. Doraiswamy Iyengar, K. Subramanya Sastri, I. Sivaramaia, T. N. Sreekantiah, M. P. Pujar, T. Srinivasacharya, C. K. Venkataramaia, K. V. Puttappa, M. R. Srinivasamurthi, A. Shantharaja Sastri and A. R. Krishna Sastri are worth mentioning as these represent all parts of Karnataka.

In the first two articles some facts re. the life and times of Ranna are discussed. The rest are critical essays on the works of Ranna. With the exception of "Mahakavi Ranna and Ajitathirtha Purana Thilaka" by Pandit Santharaja Sastri, all the remaining essays are critical appreciations of Ranna's "Gadayuddha".

It is generally admitted that in Ajitathirtha Purana Thilaka there was no scope for the expression or display of the poetic genius of Ranna. "ರನ್ನ ಕವಿ ಪ್ರಶಸ್ತಿ" & "ರನ್ನ" are two essays on Ranna's works from the view-point of Sanskrit poetics. The other essays are written from the point of view of principles of modern English Literary criticism. How far is Ranna indebted to other poets? What are the special characteristics of 'Gadayuddha'? Who is the real hero of 'Gadayuddha'—Bheema or Duryodhana? Skill in the characterization of his heroes, the peculiarities of his style, his power of expression, etc., are the points dealt with in these.

The essays are not written with the object of praising Ranna. Real and praiseworthy attempts have been made in these essays to come at the real value and worth of Ranna's poetic genius. It should be first admitted that the writers who have contributed to this volume are all sincere lovers of Ranna and his works. But they have examined his work most impartially. Alankara, plot, characterization, etc., are some of the other points of view from which these critics have examined his works. All are agreed that Ranna is a Mahakavi, though none has failed to note the defects and weak points in his works.

Some of the authors of these essays are very great scholars in Sanskrit, some in English and a few in both. We can clearly understand the greatness of Ranna if we see the poets to whom he is compared. After describing the characteristics of the grand style, Mr. S. V. Ranganna states that Ranna deserves to be classed with 'Homer, Dante and Milton'. Mr. A. R. Krishna Sastri has compared Ranna to Bhavabhuti in the description of Karuna Rasa and points out that Ranna is even superior to Bhavabhuti in this descriptive work. The critics of Ranna's 'Gadayuddha' have shown how far Ranna is indebted to Pampa and are curious to find out the reason why Pampa was not referred to in 'Gadayuddha', while he has

praised him in "Ajita". The greatness of Pampa is easily established by some of the essayists. Many have compared Ranna with Pampa. But none should forget that a share—perhaps a large share—of Ranna's fame is lawfully Pampa's.

The volume is no doubt an exhaustive critical appreciation of Ranna's 'Gadayuddha'. But a few points seek elucidation yet, e.g., why or how is it Ranna who has depicted Duryodhana as a Mahaveera makes him enter Vaishampayana Sarovara with his back towards the lake? Why has Ranna who usually follows Pampa in the development of his plot, taken up Droupadi Vasthrapaharana which has not been dealt with at length by Pampa? Is it possible or probable that the poet perceived that it was inevitable that Bhima should surpass Duryodhana in the end and attempted to enhance the defects of Duryodhana's character towards the end?

The addition of a few scenes from "Gadayuddha Nataka" to the volume has augmented its usefulness. The staging of that drama was the chief reason for the publication of this volume. It is really a matter for congratulation the foreword has been written by no less a poet and critic than Mr. B. M. Srikantia. The preparation and publication of this volume are the results of his suggestion as can be seen from the foreword. His adaptation of 'Gadayuddha' into a drama with a view to popularize Ranna's work has been the most invaluable means for the appreciation of Ranna's greatness and the study of his works. Mr. B. M. Srikantia has pointed out the lines on which those that want to serve the cause of Kannada literature now should work. His short but sweet appreciation of Ranna cannot but appeal to all sincere students of Kannada literature.

The habit of team work in the literary field was unknown in Mysore till the Karnataka Sangha, Central College, Bangalore, brought out the first book of the kind in the history of Kannada language—Muddanna, an appreciation of Nandalike Laxminaranappa and his Kannada works. "Rannakavi Prashasthi" is the first of the kind published by the Mysore University Union on the model of Muddanna.

The Mysore University Union deserves our sincere congratulations on its publishing activity. We sincerely wish that the Union will bring out similar publications every year and advance the cause of Kannada literature and thus develop a taste for good publications not only in its members but also the Kannada-reading public.

A. N. N.



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# **KATHAKOPANISHAD**

## **SANSKRIT TEXT**

WITH  
**ENGLISH METRICAL VERSION**  
**EXPLANATORY NOTES AND GLOSSARY**

BY

**D. VENKATARAMIAH, B.A., L.T.,**

*Retired Circle Inspector of Education, Mysore Service.*

**Price Rs. 2—4—0**

**Extract from Author's Preface:**—A word of apology is perhaps needed for adding this translation of mine to the several versions in English that already exist. The only justification is that a metrical rendering keeping as close as possible to the original has not yet been made available to the general reader. The prose translations, by such eminent scholars as Max Muller, no doubt give a correct idea of the Upanishad interpreted literally; yet it must be admitted by all those who are conversant with the Upanishad in any of its traditional interpretations, that the spirit of the teaching is often missed and sometimes a wholly wrong impression is produced in these attempts to be faithful to the letter of the Scriptures. Some of the Upanishads and among them the Katha, possess, in addition to the high seriousness of matter, a charm of diction and finish in poetic art, all their own, and much of the pleasure, that such exalted poetry offers, is lost in translations generally from one language to another and particularly is this the case when a genuine poetical composition is rendered into bald prose. I have made a feeble attempt to present the original in English metrical version, with a view to convey, in however small a measure, the poetic beauty of the Upanishad and if it should prove the means of attracting some of the more thoughtful amongst us to the eternal wisdom of Aryavarta, I shall be highly gratified.

The notes are intended to throw further light on the teaching of the Upanishad but it must be added that like the translation itself, they are based upon Sri Sankaracharya's commentary and other advaitic interpretations of the Upanishad.

The glossary is given for the benefit of such readers as are making their first acquaintance of the Upanishad in the original.

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## CONTENTS.

---

	PAGES
Some Problems of Identity in Early Vijayanagar History—	
BY R. RAMA RAO, ESQ., B.A.    ..    ..	.. 251—269
Mughal Land Revenue System—	
BY LANKA SUNDARAM, ESQ., M.A., F.R.E.S.    ..	.. 270—286
Svetasvataropanishad—	
BY D. VENKATRAMIAH, ESQ., B.A., L.T.    ..	.. 287—293
The Sumero-Dravidian and the Hittite-Aryan Origins—	
BY R. S. VAIDYANATHA AYYAR, ESQ., B.A., M.R.A.S., F.R.HIST.S. (LOND.)    ..    ..	.. 294—313
Studies in Bird-Myths, No. XXVI—	
BY PROF. SARAT CHANDRA MITRA, M.A., B.L.    ..	.. 314—315
Studies in Plant-Myths, No. IV—	
BY PROF. SARAT CHANDRA MITRA, M.A., B.L.    ..	.. 316—319
Notes    ..    ..    ..    ..	.. 320—322
Reviews    ..    ..    ..    ..	.. 323—329



# The Quarterly Journal of the Mythic Society

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## SOME PROBLEMS OF IDENTITY IN EARLY VIJAYANAGAR HISTORY.

BY R. RAMA RAO, ESQ., B.A.

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MUCH has been written about the early kings of Vijayanagar but very little has been published regarding the ministers and viceroys who worked under them and helped to build up the empire. The history of a kingdom is the history not only of its kings, but also of the ministers, generals, provincial governors, religious leaders and reformers who have contributed to the rise and fall of the kingdom. Scholars must therefore be highly indebted to Rev. H. Heras of St. Xavier's College, Bombay, for the valuable article contributed by him to the *Quarterly Journal of the Mythic Society*, Bangalore, Vol. XIX, No. 1, giving an account of the ministers of Harihara II as ascertained from a study of inscriptions under the title 'Goa Viragal of the time of Harihara II of Vijayanagara'.

While, however, one admires the patience and zeal displayed in the article in the collection of information pertaining to each minister from the vast mass of inscriptions published in Mysore and Madras, we cannot but be struck with some of the generalizations and identities propounded for the first time in the article between persons who seem to be totally different from each other. Thus Mādhavamantri, governor of Chandragutti and Āraga, is identified with prince Mallappa Voḍeyar; Virūpāksha-rāya, son of Harihara II, is taken to be the same as Viṭṭhappa Voḍeyar, son of Brahmaraḥja

and governor of Āraṅga; and in the attempts to establish such identities, Rev. Heras has gone one step further and boldly states that King Harihara II was called Immaḍi Bukkarāya and Mādarasa Voḍeyar in some inscriptions and that Bukka II was also known as Virūpāksha Mahārāya and Viṭṭhappa Voḍeyar. As the subject is of considerable importance and the identities if accepted would upset much of the known history of Vijayanagar, I have tried to examine in this paper whether these identities have any proper basis and can be accepted.

#### Madhavamantri and Mallappa Voḍeyar.

Nearly half of the article of Rev. Heras is taken up with his attempt to establish the identity of Mādhavamantri and Mallappa Voḍeyar and it is but fair that readers should be well acquainted with all the available facts of the history of these personages so far as can be gathered from a study of inscriptions and other sources referred to by Rev. Heras in his article and of other inscriptions published in the *Epigraphia Carnatica* and other sources before determining whether the identity can be accepted.

*Mādhavamantri*.—He first comes to notice in 1347 A.D.<sup>1</sup> as the minister of Prince Mārāpa, younger brother of Harihara I who was invested with the government of Chandragutti Kingdom and extended his power to Gōkarna on the west coast by defeating the Kadamba King of Banavasi. Mādhava called also Mādhavamantri in the inscription was Mārāpa's minister and adviser and is described as excelling Brihaspati in wisdom. He was a disciple of Kriyāśakti, a famous Śaiva teacher and is described as a very Triyambaka (god Śiva) in wisdom and who taught the essence of Śaivāgama after a study of Vēdas, Purāṇas and Samhitās. An agrahāra grant was made by Mādhava by the orders of his master Prince Mārāpa.

We next hear of him in 1368 A.D. in a stone inscription in Shikarpur Taluk in Shimoga District.<sup>2</sup> Here we are told that King Bukka I ruling in Vijayanagar appointed his minister Mādhava to govern the kingdom extending to the western ocean. Mādhava was a Brahmin and son of Chāvūṇḍa of Āṅgīrasa-gōtra. He was possessed of great prowess and is described as the incarnation of the power of Bukka. He was a devout worshipper of god Triyambakanātha (Śiva) embodied in his Ishtalinga (favourite Linga) in the manner laid down in Śuddha Saivāmnāya (Pure Śaivism) as taught by his guru Kāśīvilāsa Kriyāśakti.

1. Kātavalli Copper plates. E. C. VIII. Sorab Taluk No. 375 of Śaka 1268 Vyaya Sam. Magha 30 Sunday. Date regular. Corresponds to Sunday, 11th February A.D. 1347.

2. E. C. VII. Shikarpur 281 of Ś. 1290 Kīlaka Sam. Kartika Bahula 8 Monday. Ś. 1290 Kīlaka is equivalent to A.D. 1368 but in this year the date would fall on Friday and not on Monday. If the previous year is taken as is done in some cases, the date would fall on Monday and be equivalent to 15th November 1368 A.D. The inscription is in the village Haromuchebandi.

He is praised as the teacher who established the path of the Upanishads (Upanishanmārga-praishṭāguru). In connection with a *Vrata* which he had begun in the month of Kārtika, he made a grant of a village Muchchunḍi, situated in Nāgarakhanda, to some Kashmiri Brahmins well versed in the Vedas and following pure Śaivism. The village is stated to have been purchased from the chief citizens of the district.

Another inscription at the same place<sup>1</sup> dated a few days back gives the particulars of the sale deed executed by the chief citizens of eighteen Kampanas in Gutti-rājya in Banavasi 12,000 province, in favour of the illustrious Mādarasa Oḍeyar, Mahāpradhāna of King Bukkarāya after receiving the full price of two hundred varahas and presents for converting it into an agrahāra. Mahāpradhāna Mādarasa Voḍeyar is therefore the same as Mādhavamantri, the name being derived from Mādu, or Māda, the abbreviated Kannada form of the name of Mādhava, by the addition of honorific suffixes arasa and Oḍeyar. (It may be noted here that according to usage in Kannada language the name Mahadēva is also shortened into Māda and Mādarasa may be derived therefrom. But in the present instance Mādarasa is evidently the same as Mādhava.)

So far Mādhava has been spoken of as governor of Gutti Kingdom including Banavasi and also Gōkarna. (It may be taken to include portions of the taluks Sorab, Shikārpur and Sāgar in the Shimoga District and a small portion of coast strip in the north of North Kanara District.) But in 1368 A.D. Mādarasa Voḍeyar is stated in a stone inscription of Bālehonnur village in Koppa Taluk<sup>2</sup> to be governing Āraga, Sayiduguta (?), Kolenāḍu (?) and other kingdoms, while Bukkarāya (Bukka I) was king of Vijayanagar. Boltarasa, his son, is stated to be looking after Makki (?). We next learn that the illustrious Vīra Virupaṇṇa Voḍeyar (son of Bukka I) having become the ruler of kingdom of the earth, a grant was made to a temple in Bālehalli in Hongenād. We may note that Prince Virupaṇṇa Voḍeyar of this record is stated in several inscriptions to have been ruling the kingdom of Āraga from 1362 to 1380. (*E. C. VIII*, Tirthahalli 20, 37, 197, 30, 16, 125, 108, 114, 116, 167, Koppa 30.) Apparently Mādhava governed the provinces of Āraga, etc., as a

1. *E. C. VII*. Shikarpur 282. Date Ś. 1291 Kilaka Kar. Su. 1 Sun.—Sunday, 24th Oct. 1367 on the principle followed in the previous record.

2. *E. C. VI*. Koppa 6. Ś. 1290 Kilaka Magha Su. 10 Wed. (17th Jan. 1368 Wed.) A similar inscription at the same place dated 1369 has been noticed in p. 56, *Mys. Arch. Rep.* 1916.

A stone inscription of the village Koḍḥru, Nagar Taluk, dated Ś. 1290 Plavanga Sam. Kar. Su. 1 Monday (October 24, A.D. 1367 Sunday) registers a grant to a temple when king Bukkarāya's son Vīra Virupa Rāya's Pradhāna Talukāḍa Māvarasa was governing Āraga, Gutti, Idḡunḍi with Konkana and Hoysaṇarājya as boundary. From the details given it is likely that Māvarasa here is a mistake for Mādarasa of the other records. *E. C. VIII*, Nagar 34.

minister of or subordinate to or junior to the prince and subject to the king at Vijayanagar.

A record dated in 1377 in the village Sâdagalale in Shikarpur Taluk<sup>1</sup> also states that Pradhâna Mâdarasa Oḍeyar was governing Âraga, Gutti and other provinces of Maledêśa, while Harihara II was king of Vijayanagar.

Mâdhava seems to have now turned his attention to Konkani on the west coast (of which Goa is stated in inscriptions to be the capital) and fought valiantly against the Turks who ruled there and Konkaniyas (people of Konkani). A stone inscription of the village Îsarâpura in Honnâli Taluk<sup>2</sup> tells that while Harihara was king in Vijayanagar and his son Chikkarâya was ruling the kingdom of Malerâjya in the city of Âraga, and his (Chikkarâya) dependant, Vîra Vasanta Mâdhava Râya ruled Âraga and Gutti provinces in peace and wisdom, Basappanâyaka, his subordinate, made a gift to Brahmans. The titles Mahâpradhâna, terrible to hostile kings, champion over three kings, destroyer of Turuka army, restorer of the gifts made to gods and Brahmans, are applied to Mâdhava indicative of his political position and conquests and the epithet Vîra Vasanta prefixed to his name meaning 'a spring season to heroes' or 'hero ever fresh in valour'. (We may note here that Vîra Vasantarâya is the name of an imaginary hero, who is believed by the followers of the Lingayat sect to rise in future to destroy all evil kings.) Prince Chikkarâya spoken of as the overlord of Mâdhava in this record was the son of Harihara II and his rule over Âraga Kingdom in 1380 to 1381 is also testified to by other records (*E. C. VI* Koppa 31; Bangalore Inam Office copper plate grant, *Mysore Archaeological Report* for 1908, page 14).

Mâdhava is also described in another inscription on stone of 1380 A.D. in the village Uddhare,<sup>3</sup> Sorab Taluk, to be fighting with Konkaniyas. A brave warrior Bayicha (who was only a soldier fighting under Mâdhava and not his son as Rev. Heras seems to believe; see page 16 of his article) showed his mettle before his master Mâdhavarâya and died. Mâdhava is called in this record Mâdhavarâya and Mâdhavanarapati and is stated to be residing in the capital Jallâmbe.

A stone inscription of four years later, namely 1384 A.D. in the village Bhôgârakoppa,<sup>4</sup> Tirthahalli Taluk, makes no reference to any war but merely states that Mâdhavamantri, Mahâpradhâna of the house of king Harihararâya (II) was governing the eighteen Kampanas (Districts of Âraga in Malerâjya)

1. *E. C. VII.* Shikarpur 75, Ś. 1299 Pingala Kar. Su. 13 Thursday (15th Oct. 1377 Thu.)

2. *E. C. VII.* Honnali 84 Ś. 1301 Siddhārthi Bhadr. Ba. 6 Tuesday (14th Aug. 1380 Tuesday if next year is taken; otherwise it falls in 1379 A.D. and the week day is wrong).

3. *E. C. VIII.* Sorab 152, Ś. 130(2) Raudri Val. Su. 3 Tues. (7th April, A.D. 1380 Tues.)

4. *E. C. VIII.* Tirthahalli 147 of Ś. 1307 Raktakshi Sra. Ba. 30 Monday with Solar Eclipse (August 17, A.D. 1384. A day of solar eclipse but Wednesday.)



and a grant was made to some Brahmans of the village Koḍalu. An epigraph dated in 1389 A.D. in the village Hire Avali,<sup>1</sup> Sorab Taluk, not far from Āraga, records the death of a Jaina by sanyasaua during the reign of Harihara (with titles) in Vijayanagar and during the time of Mahāpradhāni Mantri-shiromani Mādarasa Voḍeyar. No further particulars are given about Mādhava in this record.

The last inscription of Mādhava in the Mysore State is dated in 1391 A.D. and is found in the village Kuppagadde,<sup>2</sup> Sorab Taluk. The inscription begins with the imperial titles Rājādhirāja Rājaparamēśvara and after this comes the phrase "Triyambakadēvara dibhya-śrī-pāda-padmārādhakanum appa Śrī Viramādarasa Voḍeyaru sukha-sankathā-vinōdadim rājyamgeyyuttam irddalli" which means while the worshipper of the sacred lotus feet of Triyambakadēvaru, Vira Mādarasa Voḍeyaru was ruling the kingdom in peace and wisdom. Now these imperial titles indicative of royal rank are never assumed in any of Mādhava's inscriptions. He does not even call himself a mahamaṇḍalēśvara but is called a mahāpradhana or mantri and a dependant of kings like Bukka and Harihara and even of princes like Chikka-Rāya or Virupaṇṇa Voḍeyar. Hence it has to be presumed that in place of the name of king Harihararāyaru after imperial titles the engraver wrote Triyambakadēvaru by mistake. The mistake was natural as Mādhava was himself a devotee of Triyambakadēvaru (god). The omission of the name of a reigning king by the engraver is not unknown. Thus in an inscription at Kuppe of the same taluk of A.D. 1441 we find after the details of dating the phrase while governing the kingdom in peace and wisdom in Hastināvati. The name of the king is omitted.<sup>3</sup>

Some time after the date of the above inscription (i.e., 1391 A.D.) Mādhava seems to have died; for a stone inscription of 1396 while calling him Mahāpradhāna Vira Vasanta Mādhavarāya and giving him titles, champion over Turukas, destroyer of seven Konkanas, plunderer of Kadambas, lord of city Gōva, describes his *kumāra* (son or nephew) Bāchaṇṇarāya of Ātrēya-gōtra as mahāmantriśvara governing Chandragutti, Banavase, Konkaṇa, Rangini (?) and other provinces. The titles given to him such as Konkaṇapratishṭhāchārya show that he must have begun to rule over the province some years earlier.

The conquest of Gōva has not been referred to in any grants of Mysore previous to the above record of 1396 A.D. Two inscriptions of the village Kukke, called Subrahmaṇya popularly, twenty-eight miles to the south-east

1. E. C. VIII. Sorab 116. Ś. 1311 Śukla Kar. Ba. 14 Tuesday (16th November, 1389 A.D.)

2. E. C. VIII. Sorab 181. Ś. 1314 Prajapati Ash. Ba. 10 Monday (26th June 1391, Prajapati is S.S. 1313—A.D. 1391).

3. E. C. VIII. Sorab 495. Ś. 1363 Krādhana Bhādr. Su. 8 Tuesday.

of Uppinangaḍi in Uppinangaḍi Taluk in South Canara District, near the border of Manjarabad Taluk in Mysore State, dated Ś. 1309 (A.D. 1387) record a grant to a temple by Mādhavarāya, lord of Gōva.<sup>1</sup> But certain copper plate grants deal with the conquest of Gōva by Mādhava. The first of these is dated 1391 A.D.<sup>2</sup> and contains a graphic account of Mādhava's capture of Gōva, capital of Konkaṇarājya and the expulsion of Turushkas and restoration of Saptakōṭīśvara and other gods that had been uprooted by the Turushkas.

Mādhava, the excellent minister, is stated to have been ruling the kingdom of Jayantīpura (Banavase) by the orders of Harihara II and when he died Harihara appointed Naraharimantri in Gōva in his place and he also attained great fame. Next come the details of the grant of the village Kuchara in Kuchara-vishaya to Brahmans by the great Minister Mādhavarāja, a teacher to those who followed the path of Upanishads, on Wednesday full moon day of Vaiśākha, in the year Prajāpati, Śaka 1313. Now it is certain that Mādhava was alive at the time of gift but by the time the grant was formally engraved on copper he had died and was succeeded by Narahari. Hence the inscription itself may be assigned to 1392 or 1393 A.D.

Another copper plate grant of probably the same date<sup>3</sup> and giving a similar account of the conquest of Gōva has been noticed in *A. S. I. W. C.*, 1920, p. 56. But Mādhava is here stated to be governing Konkaṇa province at the time of the grant and not dead. His father is named Chāmuṇḍa and he is said to be of Bhāradvāja-gōtra. The village granted is named Chadala in the province of Vārasa.

One more grant assigned to Mādhava is (what purports to be) a copy of a copper plate grant from Gōva, not dated, noticed by Bhau Daji. Mādhava is here called lord of Gōva, guide of the ways of Upanishads, faithful observer of Śrauta and Smārta religious law, of Bhāradvāja-gōtra, son of Dvivēdi Chaṇḍibhaṭṭa and Māchāmbika.<sup>4</sup> But grave doubts are expressed

1. Sewell's *List of Antiquities in Madras*, Vol. 1, page 238. An inscription in a temple in Mādakeri, South Kanara District, of the reign of Harihara II and dated Ś. 1302 Raudri mentions Dammarasa as a Governor of Bārakūr kingdom and Kumāra Mādhavasvāmin as having set up the image of Gōpīnāth in Bārakūr Matha. (*Madras Epigraphist's Report*, 1901, No. 135.) It is impossible to believe that this Kumāra Mādhavasvāmin who has no titles or other marks of distinction and who is a subordinate of a Governor of province could be same as Mādhavamantri.

2. The details of the date correspond to Wednesday 5th April, A.D. 1391 but the date is the full Monday of the commencement of Vaiśākha, *J. B. Br. A. S.*, IV, 105, 111, 116.

3. Ś. 1313 Prajāpati Sam. Chaitra 13a. 30 with solar eclipse, unfortunately the grant is not yet fully published.

4. *J. B. Br. A. S.* Vol. IX, p. 225. A similar copy of a copper plate grant referring to the gift of the village Koppala by Mādhavamantri, chief minister of Vijaya Vidyā Dēvarāya in the year Paingala Ś. 819 to a mutt in Talkād is a pure forgery and cannot be relied upon. *E. C.* III, T.-Narsipur 47.

by Bhau Daji himself about the real existence or genuineness of the copper plate.

Summarizing we find that Mādhava was a Brahman, son of Chāvūṇḍa of Āṅgīrasa or Bhāradvāja-gōtra and a scholar in the Upanishads and Śaiva philosophy, a disciple of the Śaiva teacher Kāśīvilāsa Kriyāśakti and a great devotee of Triyambaka (God Śiva). Kriyāśakti is called rājaguru in inscriptions of Harihara II and Dēvarāya (*E. C. XI*, Davangere 23; *E. C. VI*, Channarayapatna 256, etc.)

Mādhava is also the author of a commentary on Sūtasamhita called Tātparyadīpikā and calls himself there the disciple of Kāśīvilāsa Kriyāśakti and the guide in the path of Upanishads. He has been taken by some to be identical with Vidyāranya but the political position held by Mādhava including his conquests, and his adherence to extreme Śaivism clearly distinguish him from the other. Moreover Vidyāranya died in 1386 A.D. according to Sringeri copper plate grant of Harihara II (*Mysore Archaeological Report*, 1916, p. 59). Mādhava lived for some years more.

#### Mallappa Voḍeyar.

Let us now turn to Mallappa Voḍeyar. There are several inscriptions that relate to Mallappa Voḍeyar in the reigns of early Vijayanagar kings found in various parts of Mysore State and the neighbouring districts of Madras Presidency, but the details found in them regarding Mallappa Voḍeyar are sometimes so meagre and sometimes vary so much that it is difficult to determine how far they can be assigned to the same person. As however Rev. Heras has for the purpose of identity with Mādhavamantri taken up Mallappa Voḍeyar as prince and son of Bukka I and brother of Harihara II, I shall first notice such inscriptions as evidently relate to him.

The full name of this prince is Mallinātha called also Mallinātharāya. This name is contracted into Malli and Malla and Mallappa Voḍeyar is formed from Malla by addition of honorific suffixes appa and Voḍeyar. The epigraphs relating to him are dated between 1355 and 1400 A.D. and found mostly in Bangalore District and the neighbouring taluks of other districts. The first of these<sup>1</sup> contains a grant to Dāmōdara Temple in Bannerghatta in Anekal Taluk where the record is found, made by Bukkaṇṇa Voḍeyar, son of Mahāmaṇḍalēśvara Mallappa Voḍeyar. Next come two grants of Mahāmaṇḍalika Mallappa Voḍeyar himself, son of Virabukkaṇṇa Voḍeyar (Bukka I) of 1363 and 1373 A.D.<sup>2</sup> Then comes a copper plate grant dated 1380 A.D.<sup>3</sup>

1. *E. C. IX*. Anekal 87. S. 1298 Manmatha Bhā Su. 11 Wednesday (19th August 1355 A.D.)

2. *Ibid.* Anekal 82. S. 1285 Subhakrit Āsv. Ba. 12 Thurs. (5th Oct. 1363 Thursday); also Ajjanahalli stone ins. (*Mys. Arch. Rep.*, 1915, p. 59. Date S. 1289 Pramādīcha Sam. Jyēsh. Ba. 9. But Pramādīcha is S. 1295 or 1373 A.D. and not S. 1289.)

3. *E. C. XII*. Kunigal 43. S. 1302 Raudri Mārg. Su. 1 Mon. But Mārgasīra is suppressed in 1380 A.D. Rāpdrī. If we take Nija Kārtika as the month, the date=Monday, October 29, 1380.

of Channappa Voḍeyar who captured the fort of Adavāni from Mussalmans and who was a son of Vira Mallappa Voḍeyar, younger brother of Harihara II. We have also a stone inscription of Nāraṇadēva Oḍeyar in 1396<sup>1</sup> and two copper plate grants of the same dated 1397<sup>2</sup> and another stone inscription of the same which is assigned to 1400<sup>3</sup> A.D. This Nārāyaṇadēva Voḍeyar or Nāraṇadēva Oḍeyar is described as the son of Mahāmaṇḍalēśvara Vīramallarāya or Mallinātha, son of Bukka I. There is also a stone inscription undated<sup>4</sup> relating to Timmaṇṇa, son of Vira Mallapoḍeyar, illustrious Mahāmaṇḍalēśvara, champion over hostile kings, conqueror of those who break their word, and lord of the four seas. In none of these inscriptions is Mallappa Voḍeyar styled Mahāpradhāni but is given the title of Mahāmaṇḍalēśvara indicative of his royal birth. But a stone inscription in Bannerghaṭṭa Temple<sup>5</sup> dated Ś. 1343 Plava Sam. Āsha. Śu. 2 (2nd June 1421 A.D.) records a grant by someone to the temple for prosperity of the illustrious Mahāpradhāna of Kāśyapa-gōtra, Mallappa Voḍeyar, son of Vira Bukkaṇṇa Voḍeyar (with titles Mahāmaṇḍalēśvara, conqueror of hostile kings, punisher of those who break their word and lord of four seas). It is difficult to determine whether the word Mahāpradhāna here relates to somebody who made the grant or to Mallappa Voḍeyar himself. Anyway Mallappa Voḍeyar is here described as ruling the kingdom of the earth in so late a period as 1421 A.D. The other record assigned to 1400 A.D. contains the date Ś. 1323 Viśvāvasu Sam. Push. Śu. 10 Thurs. in the Kannada Text (p. 292) but it is corrected into Ś. 1323 *Vikrama* in the transliteration. If Viśvāvasu is taken as correct the date would be Ś 1347 or 1425 A.D. But as Harihara is mentioned as king the date is too late for him and the corrected date may stand though such corrections are dangerous. Similarly in the case of the previous inscription the date may be considered to be wrong, for since Mallappa Voḍeyar had a son who could make a grant in 1355 A.D., he would be too old in 1421 or 1425 A.D. None of these records refer to Āraga or Konkaṇa in the west but merely refer to Sigalanāḍu and Arulabhālarājya, etc.

There are however some inscriptions that relate to Mallappa Voḍeyar or a modified form of the name in the west. Certain stone inscriptions noticed in the *Madras Epigraphical Report* for 1901, refer to Mallayadanāyaka who

1. *Mys. Arch. Rep.*, 1908, p. 16, Stone ins. at Bannerghaṭṭa of 1396 A.D. ; see also *E.C.* IX. Kankanhalli Taluk 100 of A.D. 1393.

2. *E. C.* III. T-Narasipur 64. Ś. 1319 Śvara Śrāv. Śu. 5 Sunday with Simhasankramana = July 29 A.D. 1397 Sunday : Ummattūr copper plate grant of same year (*Mys. Arch. Rep.* for 1908, p. 16.)

3. *E. C.* IX. Kankanhalli 97.

4. *E. C.* IX. Channapatna 55.

5. *Ibid.*, Anekal 86.

governed Bārakūr kingdom from 1359 to 1365. These inscriptions are found in Uḍipi, nine miles to the south of Bārakūr in South Kanara District.<sup>1</sup> After this other governors Goparasa, Bommarasa and Jakkappa Voḍeyar are stated to have governed the district in years Ś. 1288 and 1293; 1301 and 1302; 1304.<sup>2</sup> But in Ś. 1309, 1311 and 1312, viz., A.D. 1387 to 1390,<sup>3</sup> inscriptions of Mallappa Voḍeyar are found in the place and he is stated to have been governing Tuḷu, Haive and Konkaṇa kingdoms from the capital Bārakūr (*Madras Epigraphic Report* for 1901, No. 165). In Bhatkal, north of Bārakūr, a copper plate inscription has been found dated Ś. 1309 Kshaya Sam. Push. Ba. 5 Thurs. (January 10, 1387 Thursday) which also relate to Mallappa or Mallappa Voḍeyar governing Haive Kingdom from the capital Honnavur (north of Bhatkal).<sup>4</sup>

Previous to these is a record of Mallappa Voḍeyar assigned to 1380 A.D. This is the Viragal in old Gōva Museum edited by Rev. Heras in the issue of the *Mythic Society Journal* under reference. It describes a battle which took place when Harihara II was king and Mahāpradhāna Mallappa Voḍeyar was ruling the kingdom of Haive (which comprised a portion of the present North Canara District). The actual place of the battle cannot be identified.

The first inscription that refers to Mallappa Voḍeyar in Āraga is of 1390 A.D. and found in a village Goddanakoppa, Shikaripur Taluk.<sup>5</sup> It records some grant to a temple while Harihararāya was king and Mahāpradhāna Mallappa Voḍeyar was governing Āragarājya. Another record in the village Bālehoṇnūr,<sup>6</sup> of the year Nandana Māgha Śu. 5 Thur. registers a grant to a temple by Bommarasa, household officer of Mallappa Voḍeyar, Pradhāna of Hariappa Voḍeyar of Āraga, son of Vira Marappa Voḍeyar, a sultan over Hindu kings. The Śaka year is not given but the record is assigned to 1412 A.D. by Mr. Rice. The inscription does not actually speak of Mallappa Voḍeyar as governing Āraga.

There are two records of 1420 and 1445 A.D. which refer to Mallappa Voḍeyar ruling Gutti Durga or Gutti Rājya (Chandragutti near Banavase). The first is a copper plate grant<sup>7</sup> recording some gift by a Gowda and mentions

1. *Madras Epigraphist's Collection* for 1901, Nos. 132, 133, 138 and 141.

2. *Ibid.*

3. *Ibid.*, Nos. 154, 155 and 165.

4. *Ep. Ind.* III, p. 188: Date Ś. 1309 Kshaya Sam. Pushya Ba. 5 Thurs. (Jan. 10, 1387 A.D. Thursday.)

5. *E. C.* VII. Shikaripur Taluk 313. Date Ś. 1312 Pramōdūta Sam. Mārg. Ba. 30 Solar eclipse, Vyatpata and Sankranti (7th December, A.D. 1390 Wednesday.) But no solar eclipse nor Sankranti.

6. *E. C.* VI. Koppa 7. Nandana Sam. Māgha Śu. 5 Thursday (Jan. 7, A.D. 1413, a Saturday).

7. *E. C.* VII. Shikaripur 288. Ś. 1341 Vikāri Sam. Push. Ba. 30 Solar eclipse (15th January, A.D. 1420, no solar eclipse).

Mahāpradhāni Mallappa Voḍeyar, younger brother of Bāchaṇṇa Voḍeyar, the subordinate of king Pratāpadēvarāya. The other is a stone inscription<sup>1</sup> in the village Kuppe in Sorab Taluk of Śaka 1367 Krōdhana Sam. Bhā. Śu. 8 Tues. (10th August A.D. 1445 Tuesday, but the date is given as 1363 in Kannada Text) registering a grant when Pradhāna Mallarasa Voḍeyar was ruling Guttinārājya during the reign of (name left out) in Vijayanagar.

There are also other inscriptions in remote provinces referring to a Mallappa or Mallappa Voḍeyar without his parentage. Thus a stone record in Chittūr District (No. 480 of *Mad. Ep. Rep.* for 1905) refers to Mallappa Voḍeyar for whose merit a gift was made by Gopparasa in Chittur District in the year Nandana (Śaka year not given). Another in Chengalput District (*Mad. Ep. Rep.*, 1900, No. 210) relates to a Mallappa Voḍeyar by whose orders a gift of taxes was made during the reign of Harihara II.

Another stone inscription in Gōribidnūr Taluk<sup>2</sup> records a gift of a Vritti in the village Nagaragēri made to Malla Voḍeyar, by Bukkaṇṇa Voḍeyar (Bukka II), son of Harihararāya, ruling in Penugonḍa. Malla Voḍeyar is called Māva of Bukkaṇṇa Voḍeyar. This means he was maternal uncle or father-in-law of Bukka II and not necessarily grandfather (maternal) of Dēvarāya, son of Bukka, as guessed by Rev. Heras.

In addition to these we have also inscriptions of other Mallappa Voḍeyars whose parentage is distinctly given:—Inscriptions of Mahāpradhāna Mallarasa called also Mallappamantriśvara, son of Heggapa Viṭhapa, minister of Bukka II in Hassan, Belur and Mulbagal Taluks from 1399 to 1406.<sup>3</sup> Mallappa Voḍeyar, son of Irugapadaṇṇāyaka, is mentioned in No. 60 of *Madras Ep. Collection* for 1912 under whose orders a tank was repaired in Kaḍapa district in 1397 A.D. Mallappa Voḍeyar, son of Vīra Māchappa Voḍeyar with a number of birudas, is mentioned in an inscription in Kālahasti, Chittūr District, in A. D. 1382 (*Ibid.*, No. 190 of 1903). We have also a Bokkasada Mallappa, son of Boppidevaiya, to whom the village Niṭṭuru is stated to have been granted during the government of Virupaṇṇa Voḍeyar, son of Bukka I, in 1379 A.D. This is only an ordinary official who did not occupy any high position and cannot be identified with Mahāpradhāna Mallappa Voḍeyar, as there are any number of Mallappas and Mallarasas at the time whose names are recorded in inscriptions and who would also have to be identified with him on the same principle.

1. *E. C.* VIII. Sorab 495. Ś 1367 Krōdhana Sam. Bhā. Śu. 8 Tues. (10th Aug. 1445 Tuesday).

2. *E. C.* X. Goribidnūr 68: Village Kāte: Ś. 1314. Āngirasa Sam. Mārg. Śu. 1 Thursday (16th November, 1392 A.D., a Saturday).

3. *E. C.* X. Mulbagal 10 of 1399 A.D. Mallasandra ins. in the same Taluk of 1399, *Mys. Arch. Rep.* 1923, p. 62; *E. C.* V. Belur 56 of 1405: *Mys. Arch. Rep.*, 1926, p. 36; Pālya stone ins. of the same date; Māgiḥalli ins. Maḷvaḷli Taluk, 1406 A.D. *Mys. Arch. Rep.*, 1912, p. 48.



It is certain that no one Mallappa Voḍeyar could answer to the description in all these records between 1355 and 1445. We may therefore take Mahāmaṇḍalēśvara Mallappa Voḍeyar, son of Bukka I, and Mahāpradhāna Mallappa Voḍeyar of the west coast up to 1412 and leave the later Mallappa Voḍeyars as out of consideration for the purpose of trying to examine the identification with Mādhavamantri.

**Grounds given by Rev. Heras for Identification of Madhava with Mallappa  
Voḍeyar Examined:**

Madhava	Mallappa Voḍeyar
1. 1377. First inscription testifying to his rule over the kingdom of Āraga.	First inscription testifying to his rule over the kingdom of Āraga.

This is not true. For the first inscription of Mādhava in Āraga is dated 1367—68 (*vide* page 253 of this article). The first inscription of Mallappa Voḍeyar in Āraga is dated 1390. The record referred to by Rev. Heras, *viz.*, E. C. VI, Koppa 19, does not contain the name of Mallappa. The letters omitted before.....pa-Rāya, younger brother of Harihara II, can only contain the name of Virupa Rāya, who is mentioned a few lines below. Moreover the date is given as Śaka 1361 which is quite wrong and cannot serve any purpose here.<sup>1</sup>

2. Conquers Goa from the Mussalmans in 1380.	He is at the head of a military expedition into the territory of Goa.
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We do not know when Mādhava conquered Goa. The earliest reference in inscriptions to the event is in 1387 at Kukke. As regards Mallappa Voḍeyar he is never described as the ruler of Goa. The viragal merely calls him governor of Haive. It might have been taken from a distant village to Goa. It is also possible that Mallappa Voḍeyar might have co-operated with Mādhavamantri in the conquest of Goa. However it would not justify us to identify Mādhava with Mallappa Voḍeyar on the basis of this inscription, which never refers to Goa or to Konkaṇa in which Goa is situated.

3. 1380. Exercises jurisdiction over Bārakūr Rājya.	Mallappa Voḍeyar is said to be the governor of Haive (N. Canara).
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Mādhava never claims to have ruled over Bārakūr or Haive. The record referred to by Rev. Heras speaks of one Kumāramādhavasvāmin, a subordinate of Bammarasa as having made some gift in Bārakūr.<sup>2</sup> He cannot be identified with our Mādhavamantri, as Mādhavamantri would never acknowledge subordination to a simple governor.

1. Koppa 19. Date Ś. 1361 Pingala Sam. Kār. Śu. 1 Mon. The nearest Pingala is Ś. 1359 or 1437 A.D.

2. See p. 256, note 1 of this article.



4. 1387. Exercises jurisdiction over Bārakūr Rājya, and he is styled Rāya of Goa. He is ruling Tulu, S. Kanara Haive and Konkana-rājya (Goa).

The statement that Mādhava exercised jurisdiction over Bārakūru-rājya is wrong and is based on the inscription at Kukke. It is true that this place is situated in the present South Kanara District to which also Bārakūr belongs. But Kukke does not claim to be in Bārakūr Rājya in the record and is far away from Bārakūr and is near to Manjarābād Taluk of Hassan District and may be taken to be in the old Āraga-Rājya. As regards Konkana of which Gōva is capital, the boundaries of this kingdom were not clearly defined. Mādhava ruled over the northern portion and Mallappa over the southern portion. Both naturally claimed to rule the same kingdom at the same time. Moreover Mādhava conquered the portion of Konkana late in his life and never claims to have conquered the whole of it.

5. Is probably removed from the government of Gova in 1390. His last inscription as Viceroy in the west.

Here again the statement is a mistake. Mādhava was never removed but died. (*Kirtīśeṣa* : See *J. B. Br. A. S.*, IX.) He lived only for a year or two more. Mallappa Voḍeyar's inscriptions in the west continued for several years more.

6. Mādhava is given many birudas, almost as a king and is called Kumāra and even rāya of Gōva. Mallappa Voḍeyar is known to be the son of Bukka I.

It is true that Mādhava is given many titles which indicate him to be a powerful conqueror and ruler but he never claims princely rank or royal titles. On the contrary Mallappa Voḍeyar whose records are found in the Bangalore District is called Mahāmaṇḍalēśvara and said to rule the kingdom of the earth indicative of princely rank. As regards Mahāpradhāna Mallappa Voḍeyar in the west coast no title beyond pradhāni or mahāpradhāni is ever applied to him and this distinguishes him from Mādhava.

7. One of the sons of Mādhava is called Mallapoḍer, a contraction of Mallappa Voḍeyar..... We recognize in Mādhava's son's name the same name of his father.

This is not true. Mādhava had no son called Mallappa Voḍeyar. He had a kumāra (son?) named Bāchannarāya. Mahāpradhāna Mallappa Voḍeyar is spoken of as younger brother of Bāchanna Voḍeyar. Now if the

two Bāchaṇṇas are identical for which there is no proof, it follows that Mallappa Voḍeyar is the son of Mādhava and not that he is the same as Mādhava. A son need not take the father's name. The names Bāchaṇṇa and Mallappa are too common at this time for any such inference.

It is therefore evident that none of the arguments advanced for the identification of Mādhava with Mallappa Voḍeyar is maintainable. On the contrary there are many points against any such identification and proving that the two are quite distinct personages.

1. *Name*.—The name of Mādhava is quite different from that of Mallappa Voḍeyar as has been already shown. Mādhavarāya, Mādhavanarapati, Mādarasa, etc., used in inscriptions are all derivatives or Kannada forms of Mādhava with the usual suffixes and prefixes. Mallappa Voḍeyar, Mallinātha, Malli, Malla, etc., are all derivatives from either Mallinātha or Malla which are the names of Śiva (Mallinātha being also used as a name of a Jaina Tirthankara) and are never used as equivalent of Mādhava which means Viṣṇu. The names are never confused either in inscriptions or popular usage. Mādhava and Mallappa are not titles or surnames like Silāditya or Vikramāditya, but are only used as names of persons. In case they are taken as titles, the real name should have been found in one or other of the numerous inscriptions relating to them. It is certain that the two names do not relate to the same person.

2. *Family and Caste*.—Mādhava was a Brahmin and of Āngirasa or Bhāradvāja-gōtra, son of Chāvuṇḍarasa and well versed in Vedas and Upanishads. It is true that there is a difference between the Chaudāla grant and Muchchandi agrahāra grant in the gōtra. The one gives it as Bharadvāja and other as Āngirasa. As the first is a copper plate and not yet fully edited and the second is a stone inscription fully published, the evidence of the latter should prevail. Moreover Āngirasa and Bhāradvāja-gōtras are connected with each other, Bhāradvāja being a grandson of Āngirasa, but what about Bāchaṇṇa Voḍeyar, kumāra of Mādhava who is recorded to have belonged to Ātrēya-gōtra? Here *kumāra* might simply mean a favourite or a dependant and not a son. For instance, in the Somanathapur temple inscription (E. C. III. T.-Narsipur Taluk, 97) Sōmayya-danṇāyaka is spoken of as the *priyaputra* (beloved son) of Narsimha II, but elsewhere in the same inscription the real father's name is given. Similarly Kuvaralakshma is spoken of as a son of King Ballāla though he was not his real son. It is also possible that Bāchaṇṇa Rāya might have been adopted by somebody else and thereby changed his gōtra according to Hindu Sastras.

3. *Chronology and the Political Position*.—Mādhava ruled from 1347 to 1392. We have no inscriptions of Mallappa Voḍeyar prior to 1355

and inscriptions of Mahâpradhâni Mallappa Voḍeyar continue till 1445. Taking prince Mallappa Voḍeyar there are records taking his date up to 1400 by which time Mâdhava was dead. Mâdhava was throughout a minister and always acknowledged (except in one solitary inscription which has been already dealt with) Vijayanagar Kings Bukka or Harihara and princes Mârappa, Viruparâya and Chikka Râya as his suzerains. Unlike Mallappa Voḍeyar, he never takes imperial titles like lord of the four oceans, champion over kings who break their word, which are characteristic of Vijayanagar kings and their sons. He does not even claim to be ruling the kingdom of earth.

4. *Provinces Governed*.—Mâdhava claims to have ruled over Chandragutti including Banavase, Âraga, Maledêsa and Konkana. He first began from Chandragutti and extended his province to the west coast and also south-eastward. His inscriptions are not found either in Mangalore, Bârakûr or Hounâvâr, etc. On the contrary Mallappa Voḍeyar or Mallappa Voḍeyar began to rule from Bârakûr which is far to the south of Chandragutti and west of Âraga and gradually extended northwards and eastwards. The last province to be conquered by Mâdhava was Konkana including Goa and it is probable that the boundaries of the provinces governed by Mâdhava and Mallappa Voḍeyar met or came near to each other in Konkana. During the period that Mâdhava was alive neither Mallappa Voḍeyar nor any other claims to rule over Chandragutti and even with regard to Âraga it is only in 1390 during the last years of Mâdhava, when he might have been absent in wars in Goa, that Mallappa claims to rule in Âraga. At all other times Mâdhava ruled in the north and east and Mallappa ruled in the south and west.

5. *Other Particulars*.—Mâdhava was a great scholar versed in Vedas, Upanishads and Śaivâgama and Purânas. He was a disciple of Kriyâśakti and a staunch Śaiva. He is described as devoted to the destruction of enemies to Brahmins and having either given or revived grants to gods and Brahmins. He is also the author of a great philosophical work full of quotations from Hindu religious works including Śaivâgama and Purânas entitled Tâtparyadîpikâ, a commentary on Sûtasamhita. He calls himself both in inscriptions and his work a guide in the path of Upanishads. Mallappa Voḍeyar was a Kshatriya (if we take him as identical with Mallinâtha Voḍeyar) and a prince and son of Bukka I. Mâdhava never claims either to be a Kshatriya or son of Bukka. He prides himself on being a Brahmin. The other details about scholarship, etc., are never found in the inscriptions of Mallappa Voḍeyar. His sons too are quite different from those of Mallappa Voḍeyar.

It is, therefore, clear that there is absolutely no reason to confuse Mādhava with Mallappa Voḍeyar and that there are very strong reasons for proving that the two are quite different both in birth and in other particulars.

Bukka I prides himself on being a Brahmin. The other details about scholarship, etc., are never found in the inscriptions of Mallappa Voḍeyar. His sons too are quite different from those of Mallappa Voḍeyar.

#### Are Virupanna Voḍeyar and Viṭṭhanna Voḍeyar identical?

We shall now take up another mistaken identity sought to be established by Rev. Heras in his article. In pp. 6-10 of that article he has tried to show that Prince Virūpāksha Voḍeyar called Virupanna Voḍeyar and son of King Harihara II is identical with Viṭṭhanna Voḍeyar, governor of the province of Āraga. It is to be remembered that Virupanna Voḍeyar, son of Harihara II, is quite distinct from Virupanna Voḍeyar, called usually Udayagiri (Vudugiri or Vedagiri) Viruparāya, son of Bukka II who ruled over Āraga kingdom from 1362 to 1380 A.D. and who is acknowledged as overlord by Mādhavamantri in some inscriptions.

Virupanna Voḍeyar or Virūpāksha was the son of Harihara II by his queen Mallādēvi.<sup>1</sup> He ruled over the Tamil country, ever engaged in wars from 1382 to 1400 A.D. Just about the time of Harihara II's death (on 31st August 1404 A.D., see *E.C.* VIII. Intr. p. 12), two inscriptions in Tirthahalli Taluk, Shimoga District (*E.C.* VIII. Tirthahalli 131 and 196)<sup>2</sup> describe that Mahārājādhirāja.....Harahara's (Harihara II's) son Virūpāksha-mahārāya was ruling in the city of Vijayanagar and that by his nirūpa (orders) Viṭṭhanna Voḍeyar was governing the kingdom of Āraga. Nothing more is heard of him after this date. Very probably both he and his brother Bukka II died shortly after and their brother Dēvarāya II became king of Vijayanagar.

Now as regards Viṭṭhanna Voḍeyar, who governed Āraga province from 1403 A.D. to 1417 A.D.<sup>3</sup> it is quite clear from the above two inscriptions that he was a subordinate of and distinct from Virupanna Voḍeyar (Virūpāksharāya).

But Rev. Heras saw the name Viranna Voḍeyar as the governor of Āraga province in three inscriptions of Tirthahalli Taluk<sup>4</sup> and inferred

1. See page 253 of this article.

2. Another inscription of 1405 A.D. is similar in contents. *E.C.* VIII. Tirthahalli 22.

3. *E.C.* VI. Koppa 52 of 1403 A.D.; also 51 and 53. *E.C.* VIII. Tirthahalli 9, 11, 13 and 196 of 1404 A.D.; also 129, 130, 133 of the same date; 126 and 205 of 1405; 122 and 131 and 190 and *E.C.* VI. Koppa 33 of 1407 A.D.; *E.C.* VII. Shimoga 70 and *E.C.* VIII. Tirthahalli 162 of 1408; *E.C.* VI. Mudgers 85 of 1410 A.D.; *E.C.* VIII. Tirthahalli 148 of 1417 A.D.; 24, 104 and 105 of Tirthahalli Taluk are undated.

4. *E.C.* VIII. Tirthahalli 22, 24, 105.

therefrom that "Virupaṇṇa Voḍeyar is called Viraṇṇa Oḍeyar, Viraṇṇa being an evident contraction for Virupaṇṇa" (p. 7 of Rev. Heras' article). Seeing further that Viraṇṇa Oḍeyar in these records is spoken of as the son of Bommaṇa and grandson of Rāyappa Oḍeyar<sup>1</sup> and Viṭhaṇṇa Oḍeyar of Āraga is also described as being of the same parentage in other records<sup>2</sup> he came to the conclusion that Virupaṇṇa Oḍeyar was the same as Viṭhaṇṇa Oḍeyar and that he ruled over the province of Āraga after coming from the Tamil country to Mysore.

Now the name Viraṇṇa is a contraction of Vīrabhadra and Virupaṇṇa, of Virūpākṣha. The two forms are generally distinct. There is absolutely nothing common either in parentage or titles between Virupaṇṇa Voḍeyar and Viraṇṇa Voḍeyar of the three inscriptions. On the contrary details given show that Viraṇṇa Oḍeyar and Viṭhaṇṇa Oḍeyar are identical. The confusion between the names arose thus:—In Kannada alphabet the difference between the letters *ra* (ರ) and *tha* (ತ) consists merely in a dot inside the latter letter and as this sometimes drops off or is omitted by the engraver *tha* becomes read *ra*. Thus Viṭhaṇṇa became Viraṇṇa. This is indisputably shown by the use of both the forms in the same inscription. Thus the lines 22 and 27 in the Kannada text of an inscription<sup>3</sup> contain the words Rāyappagala.....Viraṇṇa but line 54 contains the form Rāyappagala Viṭhannagaḷu. Naturally the translator was misled and used in his translation the form Viraṇṇa Oḍeyar throughout the inscription. In another inscription<sup>4</sup> both the forms are equally mixed in the text (lines 7, 8 and 9) but the translator has used the form Viṭhaṇṇa Oḍeyar throughout.

If we now turn to the history of Viṭhaṇṇa Oḍeyar as discovered from inscriptions we find him to be quite different from Virupaṇṇa Oḍeyar. Viṭhaṇṇa Oḍeyar, whose full name is Viṭṭhalarāya or Viṭṭhalaprabhu or Viṭhala Oḍeyar was of Brahma-Kshatriya caste, descended from Bhāradvāja-gōtra and a follower of Rikṣākhā. His father was the minister Brahmarāja called in Kannada Bommaṇa or Bommaṇāmātya, etc. and mother Virupāmbikā. Brahmarāja's parents were Śankara (called in Kannada Sankapa) and Lakshmi. Sankapa had a younger brother Rāyapa and both the brothers were ministers under Harihara II. Apparently Rāyapa seems to have outlived his brother and attained fame. Hence Brahmarāja or Bommaṇa, his brother's son, is often called Rāyapa's Bommaṇa and the family itself is called Sankapa Rāyapa's family. Viṭhaṇṇa Oḍeyar was an ardent Saiva, a disciple

1. Rāyappa was the younger brother of Sankapa whose grandson was Viṭhaṇṇa Voḍeyar, *E. C. VIII. Tirthahalli 13*; also *E. C. VI. Koppa 52*.

2. *E. C. VIII. Tirthahalli 24, 96, 113, 162, etc.*

3. *E. C. VIII. Tirthahalli 24.*

4. *E. C. VI. Koppa 52.*

of the famous Śaiva teacher Kriyāśakti and ever engaged in making gifts according to the religious works composed by Hēṃādri. He created an agrahāra named Bommanapura in the name of his father and Virupāmbikā-pura in memory of his mother and Prasanna Hariharapura in memory of his overlord king Harihara II. He acknowledges Harihara II and Virupāksharāya (Virupaṇṇa Oḍeyar), Bukka II and Dēvarāya I in his inscriptions as the suzerain and never takes imperial titles (see *E. C.* VIII. Tirthahalli 13, 104, 129, 133; *E. C.* VI. Koppa 52 and 53).<sup>1</sup>

Now these details repeated in numerous inscriptions are sufficient to deter one from confusing Virupaṇṇa Oḍeyar, a Kshatriya prince with imperial titles, and son of Harihara II and Mallādēvi with Viṭṭaṇṇa Oḍeyar, a simple viceroy without imperial titles and ever acknowledging his subordination to the royal family and son of Brahmarāja and Virupāmbikā and of Brahma-Kshatriya caste. In the face of the above the reasons given by Rev. Heras for identifying Virupaṇṇa Oḍeyar with Viṭṭaṇṇa Oḍeyar in pp. 9-10 of his article bear no consideration. There is absolutely no discrepancy in the genealogy of Viṭṭaṇṇa Oḍeyar. He is spoken of as the descendant of Rāyappa and Sankappa and the son of Bommaṇa and sometimes called Rāyappa's or Rāyappoḍeya's Viṭṭappa which merely indicates that he was his son, nephew or grandson. Similarly Bommaṇa is called Rāyappa's Bommaṇa, brother's sons in this country being often addressed as sons of their uncles. In one inscription of Tirthahalli Taluk Rāyappa has been wrongly engraved as Rāmappa, letter *ma* being written for *ya*. The suffixes *dēva*, *rāya*, *Oḍeyar* are so commonly applied to princes and nobles alike of this time that they do not prove royal birth. The name Mādhava-Virupāmbikā-pura given to the agrahāra established in memory of Viṭṭaṇṇa Oḍeyar's mother Virupāmbikā has led Rev. Heras to infer that his father's name was Mādhava (p. 8 of his article). If Mādhava was the name of Viṭṭaṇṇa Oḍeyar's father surely it would have been stated so in one or other of the numerous inscriptions. On the contrary they all give Brahmarāja (or some form of that name) as his father. Mādhava Virupāmbikā would more naturally mean Mādhava's daughter Virupāmbikā than Mādhava's wife Virupāmbikā and it is more correct to suppose that Mādhava must have been the name of Viṭṭaṇṇa Oḍeyar's maternal grandfather. (Names wrongly attributed to kings Bukka I, Harihara II and Bukka II.)

In his attempts to justify the identities proposed by him Rev. Heras has given a list of names in pp. 20-23 attributed to the Vijayanagar kings: Bukka I, Harihara II and Bukka II and tried to infer therefrom that there is so

1. In one record *E. C.* VI. Koppa 33 of 1407 A.D., Viṭṭaṇṇa Oḍeyar is stated to be ruling Araga, Cutti, Bārakūr and Mangalore by the orders of Bhāskara-rāya, son of Prāṭāparāya. But this only purports to be a copy of an inscription.



much variation in them as to indicate that names which appear to be quite different from each other were nevertheless applied to the same person at the same time. A close examination of all these names reveals that with the exception of six which will be dealt with presently they consist of the same stem with different prefixes and suffixes to show the high rank of the person named. Thus Hari is a contraction of Harihara and Hariyappa, Hariyaṇṇa, etc., are derived by the addition of the Kannada endearment affixes *aṇṇa* and *aṇṇa* to the stem Hari. Ariyaṇṇa and Ariyaṇṇa are Tamil forms of Harihara (the initial *h* of Sanskrit names is dropped in Tamil). Vira, Vijaya and Pratāpa indicating valour are used before the names of kings. Immaḍi means second and is used before Bukkarāya, son of Harihara II, to distinguish him from his grandfather Bukka (I). Mukkaṇa is merely a mistake of the engraver for Bukkaṇa, the letter *m* being written for *b*.

We shall now notice the names wrongly attributed to these kings, Vijayabhūpati in p. 21 (No. 6 of 1912-13, *Madras Epigraphical Collection*):—This is a copper plate record dated Ś. 1332 Vikṛiti Sam. Bhādra Śu. 1 Sô. with Śravana nakshatra (Monday 8th Sep., 1410 A.D.) and registers the founding of a village Kriyāśaktipura by Vijayabhūpati in Muḷuvāgil kingdom. The date clearly proves that the record belongs to prince Vijayarāya, son of Dēvarāya I and not to Bukka I as wrongly attributed by Rev. Heras.

Immaḍi Bukkarāya in *E. C. IX. Hoskote Taluk of Ś. 1299 Kālayukti Sam. Mā. Śu. 2 Thursday* (Thursday, 27th January 1379 A.D.)—This record refers to a grant made when Nāgaṇṇa Uḍaiyar was Pradhāni and Mahāmaṇḍalēśvara, conqueror of hostile kings, enemy to those kings who break their word, Immaḍi Bukkarāya was ruling the kingdom of the earth. It is true that at this time Harihara II was king but, as Rev. Heras has admitted, princes like Bukka II and Virupaṇṇa Voḍeyar are given imperial titles in inscriptions (see pp. 11 and 12 of his article). These titles merely indicate the high rank of Bukka (II) and not his identity with the reigning king of the day, *i.e.*, Harihara II. On the same principle Virupāksha Mahārāya, Bukka II's brother, is given imperial titles just after the death of Harihara II and the inscription cannot be ascribed to king Bukka II.

Viṭṭhaṇṇa Voḍeyar calls himself a mantri in the inscription *E. C. VIII. Tirthahalli 196* and the imperial titles in the record go before the name of king Harihara II and apply to him and not to Viṭṭhaṇṇa Voḍeyar. Hence there is absolutely no reason to take Viṭṭhaṇṇa Voḍeyar as a name of Bukka II.

Vira Mādarasa Voḍeyar in *E. C. VIII. Sorab 181*, has already been explained in para. 6 of this paper not to be regarded as a name of Harihara II on account of imperial titles used.



Vīra Bhūpati Rāya, No. 358 of *Madras Epigraphist's Collection* for 1913 in Chidambaram temple, undated, registers some grant for that temple by the ministers Chaṇḍarasa and Adittarasa under king Vīra Bhūpati Rāya. There is no reason to identify this king with Bukka II as Rev. Heras has done (page 23 of his article). More probably Vīra Bhūpati may be identified with Vijayabhūpati. (See Baṇḍanapalle grant of Ś. 1332 Vikṛiti Bhādr. Śu. 10 Śo., September 8, 1410 Monday in which Vijayabhūpati is recorded to have made a grant of the village Kriyāśaktipura in Hulinādu, No. 6 of *Mad. Ep. Rep.*, 1912-1913.)

#### Conclusion.

I have dealt at length with the identities between Mādhavamantri and Mallappa Voḍeyar, Virupaṇṇa Voḍeyar and Viṭṭhaṇṇa Voḍeyar sought to be established by Rev. Heras in his learned article on the interesting and ill-explored subject of the ministers of the early Vijayanagar kings. The great value of the article is marred to some extent by the ill-founded identities between kings and princes, princes and viceroys, nobles and commoners, either bearing the same or a different name. The best corrective to such a desire for identification is to be found in a careful study of the names, titles, parentage, gōtras, religion, dates and all available particulars given both in text and translation of inscriptions about the persons to be identified. If these are to be overlooked as seems to have been done by Rev. Heras in his article, we can identify anybody with everybody living in the same period and there would be a complete dislocation of all historical facts.

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## MUGHAL LAND REVENUE SYSTEM.

BY LANKA SUNDARAM, ESQ., M.A., F.R.E.S.

(Concluded from Vol. XIX, No. 3.)

### CHAPTER V.

#### Currency System of the Mughal Empire.

A SURVEY of the land revenue system of the Mughal Empire will be better understood if a bird's-eye view of the currency system of the times is presented. Even though to speak of the currency *system* of the Mughal Empire amounts to a misnomer, the student of the Mughal history derives much desirable information from a study of the general nature of the coins issued by the Mughal sovereigns. A study of the merits or otherwise of the coins of the times is essential inasmuch as it affords us an idea whether the peasants and ignorant folk of the age were not labouring under disadvantageous circumstances as regards the issue and circulation of the legal tender, whether the country was not inflated with an excessive issue of the circulating medium, whether there is any scope for the operation of what is generally known as Gresham's Law. Further, a study of the nature of the currency in the Mughal Empire is of perennial interest to financiers and students of economics, since it best illustrates the principle of the "progressive deterioration of monetary denominations", especially in India.

But the ground to tread is not smooth and trustworthy, and many points of importance are at times conjectural and hazardous. The material is in itself scanty at times, and often complicated, and hence hard to draw upon. Only sundry and scattered passages in the records of foreign travellers, and indigenous compilers of *tarikhs* throw some gleam of light upon the imperfect presentation by the *Ain-i-Akbari*, of the currency system of Akbar which served as the model to a great extent for subsequent issues of coinage by the later Mughals.

No student of Mughal history can adequately thank Prof. Shahpurshah Hormasji Hodivala for the indefatigable energy he expended in producing a monumental work, his *Historical Studies in Mughal Numismatics*, forming the second part of the *Occasional Memoirs of the Numismatic Society of India*. Prof. Hodivala, with all his powers of exegesis and decipherment, has ransacked all the available material, indigenous as well as foreign, in the production of colossal work, and reminds one of the labours of Prof. Jadunath Sarkar, the real Gibbon of the Decline and Fall of the Mughal Empire. Much of the material manipulated in the following observations is derived from his work, while my homage to the *Ain-i-Akbari* is patent on the surface.

The minting of coins during the flourish of the Mughal Empire is not confined to the capital city alone. In the days of Akbar, there are throughout the empire four mints for the coinage of gold, silver and copper; nine mints for the mintage of silver and copper; and twenty-eight mints for the coinage of copper only.<sup>1</sup> Even though there might have been changes in the location and number of mints in the reigns of the later Mughals, the prevalence of provincial mints is a fact beyond dispute. A curious point to note about these mints is that coins and medals were struck even at mints far removed from the capital, when the emperor was on a tour or visit to the town where the mint was situated for the purposes of *Nisar*, or scattering of coins and tokens among the curious rabble of ignorant town and village folk as a tangible attestation, real or assumed, of his love for his subjects in order to win their loyalty and buy their hearts.

Here we may stop for a moment and try to get at the nature of mintages for the purposes of *Nisar*. Etymologically the word *Nisar* signifies the act of scattering, the thing scattered, a small coin distributed at weddings.<sup>2</sup> It is one of the most common words to be met with in the Mughal chronicles, reminding us of one of the Pan-Asiatic customs of antiquity where a profuse distribution of largesse was made either in the form of coins or of precious stones waved round the head of the emperor or some other principal dignitary of state, and thrown among the crowds that scramble for them on important occasions such as a royal progress through the country, a munificent wedding, a birthday anniversary and the like, and the weighing of the emperor's own person (known in Sanskrit as *Tulabhar*) against precious stones and coins which were then distributed among his subjects. Not only coins but also imitation fruits—Sir Thomas Roe saw the distribution of "two chargers of *hollow almonds* of gold and silver mingled", and flowers were distributed on such occasions. The ostensible dignity of the regal prerogative which often produced an unscrupulous lavishness, the perpetual hankering after the realization of the commutation of the subjects' fidelity for his largesse, and a constant desire to appease Nemesis when a sudden and vast store of riches was realized by him as seen in the case of the weighment of his own person make a king resort to the distribution of *Nisar*. Later, by the time of Jehangir an actual coin, the *Nisar*, was struck mainly for such purposes.

Unlike the present-day Government of India the Mughal sovereigns never reserved to themselves the mintage of coins on their account. It was then a free or gratuitous coinage. An inducement was given to the people

1. *Ain*, p. 25.

2. Hodivala: *Historical Studies*, etc., p. 176.

to bring bullion to the mints and take away coins instead by the profit which they can realize by so doing. The *Ain-i-Akbari* gives elaborate accounts indicating the profit which a person can derive by taking bullion to the mint.<sup>1</sup>

Just as the standard gold is said in modern days to be eleven-twelfths fine, the fineness of coins in the time of Akbar is spoken of in terms of *Bannies*, ten *Unnies* fine being the standard gold. A peculiar point to note here is the fact that the quantity of bullion taken for purposes of minting a particular coin varies according to its fineness. Even at the present day, with highly organized mints and superior dyes, a so-called weight-remedy of two-tenths of a grain is allowed for every sovereign weighing 123.27447 grains. But in the days of Akbar with his hopelessly crude mints and unscientific management—yet they afforded the ideal for the age, a weight-remedy of one *Mashah* was taken for every round gold *Mulr* weighing eleven *Mashahs*.

Another disadvantage is that the coins of the day were hammered and not milled. Just as the Bank of England now discounts 1½*d.* for every ounce of gold brought down to it for the purpose of taking down coins instead, to cover the charges of its labour, and to make a profit out of the transaction, the seigniorage under Akbar amounted to six per cent in the case of gold,<sup>2</sup> while a like amount was taken for the actual cost of minting known in modern days as *Brassage*, as M. Chavalior was pleased to name it so.

We may now turn to the fineness in the coins of the Mughal sovereigns. Mughal coinage is remarkably known for the markedly smaller proportion of alloy in them than that of the present-day system of coinage. And absolute purity of the coinage in the Mughal Empire has been the occasion for foreign travellers to shower panegyrics upon them. The modern methods of assaying and quantitative analysis are able to substantiate the seemingly undeserving and enthusiastic exclamations of foreign travellers. In one instance of the forty-four coins assayed, no less than fourteen were found to be absolutely pure without a single grain of alloy even at the present day, all of them tracing their origin back to different reigns and different mints. And this is indeed a remarkable fact. The cumulative testimony of foreign travellers is to the point. Edmund Terry says: "the coin there is more pure than in any part of the world, being (*as they report*) of pure silver without any alloy." Herbert says that "the Mahmudi and the rupees were of good silver"; Mundy, "the current coin is of good gold, silver, copper"; Thavenot, "the silver money of the Great Mogul is finer than any other"; Fryer, "the most refined and purest form alloy in the world"; and Ovington remarks that "the gold of Surat is so very fine that twelve and fourteen per cent may be often gained by bringing it to Europe".<sup>3</sup>

1. Pp. 30-33.

2. *Ain*, p. 30.

3. Hodivala, pp. 240-41.

An important feature to note is that the Mughal rulers often maintained a very high sort of uniformity of coinage throughout the vast empire. Not only coins issued from the various provincial mints, but also those minted under successive sovereigns with varying regulations offer us a consensus of uniformity, and James Princep sums up the evidence, after tabulating the disadvantage specimens of coins belonging to the later Mughals "that Mughal Emperors maintained a great sort of uniformity in the currency of their vast empire".

The careful student of Mughal numismatics cannot fail to perceive the gradual deterioration of mintages during the period of Mughal decline. The reasons for such a phenomenon are not far to seek. The imperfection of the technical processes of the day as regards the minting of coins, the vast room for fabrication left for unscrupulous and greedy goldsmiths inasmuch as the coins of the day were only hammered, the gross dishonesty of the mint masters and treasurers in tampering with integrity of the coinage, the "mean mercenary wretches" as the *Ain-i-Akbari* calls them,<sup>1</sup> the general practice of sweating and clipping which eventually brings about the operation of Gresham's Law, the deliberate lowering of the standard of fineness and weight by dishonest *Daroghas* in whose hands was placed the management of the mints, the lack of the necessary incentive to efficient administration by the ruler himself which leads to the degeneracy of oriental despotisms, and above all, the pernicious practice of farming the revenues of the mint first to be seen in the reign of Farrukhsiyar (A.D. 1713-1719)—all these conditions engendered the progressive deterioration of mintages under the later Mughals.

India as it is at present was bimetallic even in the reigns of the Mughal sovereigns, even though we do not subscribe to the theory of the prevalence of a bimetallic or composite standard in those days. No mention of a single kind of coin which is not unlimited legal tender is to be found in contemporary records. All coins were unlimited legal tender as we shall see presently in the injunctions of Akbar. The absence of *system* in the general currencies of the times occasions frequent fluctuations in the ratio between the values of gold and silver. As we have already seen, Mughal coinage is gratuitous and not limited to Government account. Hence the Government has not the necessary opportunity for scrupulously maintaining a standard in the ratio between the two metals by temporarily suspending the issue, or causing the inflation of this or that kind of coinage, as occasion demands it according as they appreciate or depreciate in value. And one more point to note here is that Mughal conquerors, unlike their happy

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1. P. 27.

successors in power, the British people, never dissociated themselves with the causes of India, since though originally birds of passage they got themselves permanently settled in India, acquired permanent vested interests there and maintained no appreciable interests in the west to look back to or support. They have no occasion to shuffle the exchange ratios to settle profitably the accounts as regards the Home charges. Hence the fluctuations in the ratio used to drift generally from one point to another.

In the days of Akbar when the *Ain-i-Akbari* was compiled the ratio of the value of gold to that of silver stood at 9.4 : 1 ; under Jehangir it was 12 : 1 ; during the reign of Shah Jehan it rose to 14 : 1 $\frac{1}{2}$  and the highest watermark in the depreciation of the value of silver was reached in the reign of Aurangzib when the ratio approximated 16 : 1.<sup>1</sup> This state of affairs was directly amenable to the increased output of silver during the sixteenth and the seventeenth centuries (1545-1680) which seriously affected the prosperity of India through the medium of the Portuguese and other merchants, and which ultimately saw the adoption of a silver currency for the empire in the reign of Aurangzib.<sup>2</sup>

Gresham's Law is sure to operate here. Hence the gold coinage gradually disappeared from general circulation and was only to be seen in the house of principal dignitaries of the state who can afford to manage huge transactions, while the ordinary peasant and artisan thought it lucrative either to melt the gold coin into bullion and then dispose of it against silver money or hoard it up. And this has been the actual observation of more than one traveller hailing from foreign countries to India.

We have already seen that the general currency of gold and silver coins side by side in the empire is apt to lead historians to conclude the prevalence of a bimetallic *standard* in the days of the Mughal sovereigns. Such a view is erroneous. The Government authorities of those times were neither statisticians, expert economists, nor financial innovators to subscribe to this or that theory of bimetallic or monometallic standard. The very notions were quite alien and unknown to them, and the artificial limitation of the circulation of a particular coin as occasion demands it, and the fixation of a stable ratio between the two precious metals to render commerce to be carried on a sure basis were beyond their comprehension. Their ideas of economics and social history are quite astonishing to us of the twentieth century, while our theories of economics and national finance were quite inane to them, much less comprehensible. Hence to speak of the prevalence of a bimetallic *standard* in those days is nothing short of reading certain of

1. Hodivala: *Historical Studies*, etc., pp. 248-251.

2. *J.R.A.S.*, July 1887, p. 497.

the present-day ideas into the nature of the general circulation of gold coins in juxtaposition with the silver ones. Yet the facts stand bare before us and supply us with much covetable material.

The exchange value of the rupee under the Mughals has been stated by Sir Thomas Roe as 2s. 2d.; while the French writers of the later times mention that one and a half *livers* are the equivalent of one rupee.<sup>1</sup> The French *liver* is now obsolete, the modern equivalent of which is the Franc, which is a little more than nine and half pence in English money. The reason for the steady fall in the value of the rupee is at hand. The great influx of silver into India by the time of Aurangzib, as we have already seen, led to a great depreciation in the value of silver during the days when the fabric of the Mughal Empire showed overtures of a sure decline.

To the student of Mughal numismatics a real insight into the exact value of the Mughal *Tola* will be of immense importance, since then alone will it be possible for him to really comprehend the import of the several statements to be met with in the contemporary records relating to the coins of the day. The *Tola* is the unit of the British ponderary system and weighs 180 grains Troy. But the *Tola* of the Mughals is generally heavier than the British Indian *tola*. The statements of the contemporary writers as regards its actual weight come within the compass of 155 to 190.5 grains. But these are the two extremes, the one making us think it incredible, while the other asks us to doubt it exceedingly. There never can have been a regular standard in the weight of the Mughal *Tola* as against the constant form we perceive for the English pound and the French metre. The Mughal *Tola* is based on *Ratis* and the *Ratis* are in their turn dependent upon the rice grains. To obtain a steady and scientific standard between two rice grains belonging to two different places and times is almost an impossibility, while the caprice of the Government was directly responsible for decrees that often meddled with the integrity of the coinage; Mr. Hodivala observes justly "Whatever the merits of the old Indian system of weights and measures, and however well adopted it might have been to its environment, or the manner of thinking of the people, it was crude and empirical. The foundations of the tables were on units which had never been standardized and which were, perhaps, in their nature incapable of being reduced to uniformity."<sup>2</sup> After all this, we can safely conclude on the authority of the corroborated testimony of the contemporary writers that the weight of the Mughal *Tola* ranged somewhere between 185 and 186 grains Troy.

1. Mr. Kéne's paper, *J. R. A. S.*, July 1887.

2. *L.c. Cit.*, p. 233.



Having sketched out the general features of the Mughal currency we may now profitably turn to the prominent features of the numismatics during the individual reigns of Mughal sovereigns separately. Here, when I classify a certain coin as pertaining to this or that particular reign, I should not be understood as drawing a clear line of demarcation as for its vogue of circulation. On the other hand it should be understood that coin came into prominence in that particular reign, was first struck during that time, or has much to do with that particular prince; while they might have been circulating previously to that reign or after.

The reign of Babar, the genesis of the Mughal dynasty on the throne of Delhi, is the starting point of our investigation. A conqueror with a vast field for exploitation before him and a greedy rabble of fiery soldiers to satisfy behind him, Babar never had the resources necessary that could be easily realized from a settled and orderly government, nor the opportunities for making any innovations in the existing order of currency. Hence he never appears to have struck any gold money in his own name. "He was perhaps too poor to afford the luxury." Besides, during his reign we find clear traces of the general currency of foreign monetary denominations as can be inferred from several passages to the like effect in the contemporary authorities and records. The *Ashrafi*, the *Shahrukhi*, the  $\frac{1}{2}$  *Tuman* are the three types of coins which figure prominently in his reign.

The *Ashrafi*, of Mameluk origin, became famous in the fifteenth century when it was finally adopted into the Egyptian currency. The original etymological meaning of it is 'noble', corresponding to the English *noble* and in course of time it came to be loosely applied to all sorts of gold coins of varying weights and values. Its value was differently given by different authorities as being 11s. 6d. and 7s. respectively. The *Ashrafi* is several times mentioned in the *Memoirs of Babar* and other contemporary records attesting to the plenitude of its circulation and vogue. Hence it is evident that the coins belonging to the denomination under review did away with the lack of gold coins in the reign of Babar.

The *Shahrukhi* is another coin to be frequently met with in contemporary records, and many of the accounts of State revenue during the reigns of Babar and Humayun were computed in that denomination. From these data it is evident that "it was an important if not the most important unit of value" during their reigns. As for its value,  $2\frac{1}{2}$  *Shahrukhis* went to make Akbar's rupee and it weighed about 72 grains troy of silver.

The very fact that the *Tuman* forms one of the denominations of Persian money should not lead us to conclude that the numismatics of the Mughal



dynasty have nothing to do with it. Originally belonging to Iraq or Khurassan, the *Tuman* presumably came into India in the reign of Babar, and it certainly elucidates the vexed and difficult proposition of the value of the Akbari *Tankha*, while it fully illustrates the principle of the progressive deterioration in value of monetary denominations. The primary significance of the Mongolian word *Tuman* is 'myriad' or 'ten thousand', and hence it gradually came to denote a sum of money worth ten thousand *Dinars*. According to the *Akbarnama* the *Tuman* was not fixed, but was subject to local variations and has certainly gone down in value. By the time of Jehangir it was only reckoned to be worth thirty rupees, and by the time of Khafi Khan in the early part of the eighteenth century its value ran down to rupees twenty-four. "The *Tuman* was a mere money of account, and imaginary denomination with a fixed theoretical value of book-rate, but no substantial or metallic basis, and there is nothing to show that it was subject to temporary variations according to the balance of trade or the supply and demand of the precious metals."<sup>1</sup>

The reign of Humayun forms a sort of *interregnum* in the monetary history of the Mughal Empire when everything was in a sort of chaotic condition. The royal fugitive was to seek the wavering support of small potentates, while his not unbecoming rival was installed on the throne of Delhi. But even at a moment of extreme disquietude Sher Shah was able to lend a certain amount of his attention to fiscal matters. As it has been already pointed out, he reformed the currency by the issue of an abundant quantity of genuine silver money noted for its integrity; while Abul Fazl grimly admits the fact that the earliest and indelible traces of ingenuity as are to be seen in the rupee of Akbar (his deliberate hero), are to be seen in the rupee financial legislation of Sher Shah.<sup>2</sup>

The reign of Akbar saw many important innovations and improvements in the monetary history of the Mughal Empire. And if ever we are justified in speaking of the currency *system* of the Mughal Empire we should support our arguments upon the injunctions and regulations of Akbar concerning the general process of minting, the administration of the mints and the standard of integrity aimed at in the mintages.

The system of coinage under Akbar is a thorough process of experimenting and evolution. Experiments were being carried on by Amir Fattullah and Raja Todar Mal about the fixation of the depreciation allowance rendered necessary by the constant wear and tear, until 1591, when Akbar decreed that the gold *Mukhar* deficient by three grains and the rupee falling short by six grains should not be deemed 'right' coins and hence be

1. Hodivala : *Historical Studies, etc.*, p. 197.

2. *Ain*, p. 23.

accepted as bullion. This decree did away with the old evil practice of accepting degenerated coins by receiving additional bullion to make up the deficiency which left a great scope to the mint-masters—"the mean mercenary wretches" as the *Ain-i-Akbari* calls them<sup>1</sup>—to mint coins of questionable integrity and pass them off for 'fight' coins before the secular eyes of ignorant village folk, thus making a sinecure of their mints at the expense of those innocent customers. Besides, clipping the coins was to some extent prevented.

Akbar's injunctions leave no scope for favouring a particular coin and the treasuries were to accept any coins which the people brought in to pay their dues. To read modern notions into those ancient prevalences, the coins of the day were unlimited legal tender. "No serf shall be taken upon the coins of the present reign that are of full weight" and "the coins of former reigns shall be received as bullion".<sup>2</sup> Abul Fazl, summing up the regulations of Akbar about the mintages, says: "As through the attention of the Majesty, gold and silver were brought to the greatest degree of purity; in a like manner the form of the coin was improved."<sup>3</sup>

Of the 'important coins' mentioned in Abul Fazl's inventory of Akbar's coins there are twenty-four gold coins of which the *Lal-i-Jalali Muhr* worth ten rupees, and the round *Muhar* worth nine rupees were generally current in the empire; nine principal silver coins, besides many other minor ones, of which the *rupee* containing about 178 grains of a very high standard of silver and worth forty *dam*s of copper, became the general medium of exchange and four kinds of copper coins of which the *dam* gained currency in the adjustment of accounts involving fractions of a rupee. The *dam* was further divided into twenty-five parts called *Cheetels*, purely for purposes of adjusting minute accounts. Besides these there are two old specimens of coins called the *Dihrem* to be met with in the ordinary course of life in Akbar's time.

"Akbar's passion for innovation has been the subject of universal remark and his fondness for neologisms often transgressed the bounds of reason and common sense. Badauni informs us that the emperor got a Brahmin named Purukhottam 'to invent particular Sanskrit names for all things in existence'.<sup>4</sup> This sort of a perpetual hankering after innovation made him meticulously struggle for contriving silly and meaningless devices for the satisfaction of his own fancy. The high sort of oriental magnificence characteristic of all sovereigns flourishing in all time and climes in the east, mingled with the usual pitch of Muhammadan ostentation, and heightened by the native powers of æsthetic appreciation, made Akbar to see everything

1. P. 27.

2. *Ain.*, p. 268.

3. *Ibid.*, p. 17.

4. Hodivala: *Historical Studies*, etc., p. 143.

around him in perfect array and grandiloquence. Hence his zeal for show, his passion for innovation, his catering to the promptings of his fancy.

The great noteworthy feature about Akbar's system of coinage is the so-called 'Gigantic coins' or phenomenal pieces. Foreign travellers like Hawkins and de Laet were struck with the transcendental brilliance (so it seemed to them) of these phenomenal pieces and left their testimonials full of adulatory encomiums.

Heavy stamped ingots "bearing the stamp of the assayer and the banker in evidence of their purity" have been in extensive circulation at one time in China and Central Asia. Akbar, with all his keen susceptibility for innovation, struck special coins of unusual weights—of course not for general circulation. Father and son vied each with the other in the mintage of those phenomenal coins, and Jehangir mentions the presentation of gold *Muhr* weighing 1,000 tolas to Yadgar Ali, the ambassador of the ruler of Iran, while gigantic coins, though not so monstrous as the one just mentioned, are to be met with in the mintages of Shah Jahan and Aurangzib.

Akbar in his great zeal for innovation invented fanciful names for the biggest coins among the monetary denominations taken mostly from Sanskrit and the other Indian vernaculars, and actually employed a Brahmin in his service for the purpose of inventing Sanskrit names for all things in the world as we have already seen. Thus the coin *S'hansah* can be traced to the Sanskrit *Sahasra* signifying one thousand. The rationale underlying it is that this coin contained one hundred *Lal-i-Jalali Muhrs* each of which is valued at ten rupees. Thus the thousand rupees, the value of the *S'hansah*, gave it that particular name.

The mintages of these phenomenal pieces and portentous medals have occasioned a serious disagreement among the eminent numismatists as to their origin and value. Dr. Edward Thomas has postulated that they served the purpose of our present-day bank notes, especially representing higher amounts—actual coin-substitutes for our modern convertible paper money representing high values. On the other hand, General Cunningham has forwarded his theory that they were '*Nazarana Medals*', struck mainly in the interests of the big nobles in the empire, who can pay a single stamped ingot or a portentous medal more conveniently than a thousand *Muhrs* in lieu of their dues to the crown. Both these theories are no longer tenable. The one is not a palpable fact, while the other is only conjectural and hazardous, but both bear the authority of eminent men well versed to pronounce a judgment.

The possible origin and nature of those medals we are now to infer. A grandiloquent affectation at magnificence in glorying about the mintage of gigantic coins, and an arduous desire to exalt the empire in the eyes of foreign

ambassadors by presenting them with such phenomenal pieces made the Mughal sovereign decree the minting of such portentous coins. Besides those gigantic coins served as stores of value. The revenue resources of the Mughal Empire often being in excess of the actual expenditure; the habitual practice of hoarding up valuable metals inasmuch as the profitable systems of modern banking and co-operative concerns were unknown to them; the constant demand for a cash reserve which can rise equal to the occasion in any moment of financial crisis; the general craving for a sure means of success in times of military exigencies and terrible droughts—all these events rendered it possible and profitable for the Mughal sovereigns to store high values in individual denominations. As for the theories of Thomas and Cunningham, Mr. Hodiwala assures us in his important work of his authoritative testimony as to their being no longer tenable.<sup>1</sup>

The attentive ear of the careful hearer of this paper cannot fail to remember that Surat paid its dues in the reign of Akbar in *Muhmudis*. The *Muhmudi* is not a coin issuing out of the imperial mint at the capital or the provincial mints at Surat. It was minted at the Baglana Rajah's mint at Mulhar. Such is the general currency of this coin during the first half of the seventeenth century that the factors of the East India Company at Surat were compelled to send their 'rialls' or Spanish dollars to Mulhar and have them melted down and reminted in *Muhmudis*. It was a generic as well as a popular designation of the silver coins of the Sultans of Guzrat often from very earlier times, and its ratio with the Akbari rupee stood at 5:12, i.e., roughly speaking, two and a half *Muhmudis* went to make a rupee of Akbar.

"The reign of Jehangir marks an epoch in the history of Mughal numismatics and was distinguished by several notable events."<sup>2</sup> "No reader of Jehangir's 'Memoirs' could fail to have been struck by the pride and satisfaction with which he enlarged upon the rarity, value and beauty of the presents and offerings made to him on the Nauroj, the anniversary of his birth and other court festivals."<sup>3</sup> A prince noted for hilarity, indifference and fashion, Jehangir designed several innovations in the structure of the coins, the superscriptions that adorn them and the relative values of such denominations.

Of the smaller coins that draw our attention, there are many that were current during his reign. As we have already seen, a special coin the *Nisari* was struck by Jehangir for purposes of *Nisar* or scattering of gold or silver coins and other miniature imitations of fruits and flowers among the people. It is one of the terminological novelties of Jehangir and its actual weight did not matter. There is no necessity to maintain a constancy in its value,

1. *Op. Cit.*, p. 79.

2. Hodiwala: *Historical Studies, etc.*, p. 170.

3. *Ibid.*, p. 109.

since the size, the design and the metal contained in the coin depended always upon the amount of money which the emperor was willing to scatter among his subjects. Hence special orders were to be promulgated as to the mintage of such coin at the pleasure of the emperors, and we can easily connect the date of an imperial stay in a town where a provincial mint was situated and the date when a particular coin intended for the purpose of *Nisar* was minted.

*Darbs* and *Charns* are other pieces which are to be frequently met with in the statements of Jehangir. They were originally the fanciful designations invented by Akbar to a half and a quarter of the square rupee respectively. Jehangir was so fond of *Darbs* that he commonly states donations to foreign ambassadors in terms of those coins. The probable reason behind it is that Jehangir might have had a notion that foreign travellers would best appreciate and comprehend the real significance of his munificence if the value of the gift was represented in terms of a coin which is almost an equivalent to the highest silver coin in their own country. Thus the *Abbasi*, the highest Persian monetary denomination in silver, is almost equal to the half rupee of Akbar, and the *Darb* is only worth half a rupee. The *Charn*, as already noted, is worth a quarter of a rupee.

*Tanki* pieces are too frequently met with in the annals of the reign of Jehangir. The pearl and the jewel trades often made use of the *Tank* as a common weight and the *Tanki* was both a weight and a coin like the *Dam Akbar*. It saw its genesis in the creative power of Akbar and it grew into prominence in the reign of Jehangir subject to the modulating influences of local variations, and it was about sixty-four grains troy in weight. " . . . these *Tanki* pieces were struck with a view to provide for the copper currency as complete a series of fractional pieces as existed for the rupee (both square and round)."<sup>1</sup>

The *Cambray Tankas* and the *zodiacal coins* are other coins of note in the reign of Jehangir, leaving aside for the present moment his so-called "Portrait Muhrs" and heavy coins. We have the emperor's own testimony to the effect that the *Cambray Tankas* of gold and silver minted at Cambray were double the weight of the ordinary *Muhar* and rupee of Akbar. Before Jehangir's reign only *Tankas* of copper were minted and, properly speaking, gold and silver *Tankas* date from his reign.

Perhaps the *zodiacal coins* of Jehangir and of Nurjahan represent a revolutionary innovation made by the emperor. Except for the emperor's own testimony no other historical evidence relating to such coins is to be found. The royal autobiographer goes on to say that a sudden notion which

1. Hodivala : *Loc.*, p. 113.

entered his mind makes him decree that the coins should bear the figure of the constellation which belonged to the month in which the coins were struck instead of the normal mint-place. And Tavernier's yarn about Nurjahan dancing before Jehangir, obtaining the promise from him to the effect that she should be installed queen *de facto* for one day, and of the minting of gold and silver coins bearing her own name is more like a folk-tale than an historical exegesis.

Let us now turn to the heavy coins and the so-called *Portrait Muhrs* of Jehangir. There is the emperor's own report that the gold and silver coins minted during his reign were heavier than the ordinary coins of Akbar, and that he gave new names to such coins. Thus the gold coin *Nur-Jahani* and the silver *Sikka-i-Jehangiri* in contradistinction to the *Rupi-i-Jehangiri* besides showing clean traces of nomenclatural innovations were both heavier than the ordinary Akbari *Muhar* and silver rupee by twenty per cent. Both these coins were generally known as *Jehangiris*. Even among these abnormal issues there are two distinct varieties. Being heavier by a fourth and a fifth than the ordinary *Muhar* and rupee of Akbar, they weighed 204 grains and 212½ grains respectively in the case of the gold Muhrs, while the silver coins stood respectively at 214 and 222½ grains. But the standard of fineness of the coins belonging to the previous reign was scrupulously conformed to and hence the coins exchanged in the proportion of their intrinsic weights. Besides these, two distinct types of silver coins were distinguished as *Jehangiris* from the ordinary *Chalani* or *Khajana* rupees. Even though these abnormal issues were forbidden in the sixth regnal year there were enough coins to be employed in commercial transactions even late in his reign. The minting of the normal Akbari rupees and Muhrs was very rare though not altogether suspended during the first six regnal years. There are a certain number of coins that do not exactly fit into the purport of these statements and the probable conclusion is that they were sporadic issues uncommon as the regular medium of exchange and directly responsible to the ill-trained mint-masters of the provincial mints situated in the outlying districts of the empire.

The fact that the so-called *Portrait Muhrs* were of rare occurrence is apparent from the simple manifestation that the Indian museum can boast of only one of such *Muhrs*, and that another coin is registered in Mr. Whitehead's catalogue. The imperial autobiographer informs us that he specially ordered the mintage of gold pieces weighing one tola with the superscription of the Padisha's effigy on the one side and the figure of Allah surmounted by a sun on the other. These 'Portrait Muhrs' or special medals were only intended for presentation by the emperor to eminent dignitaries of the State



as a mark of imperial favour and general distinction, while the emperor took actual pleasure in seeing those medals worn by them with a sort of fetish reverence. "They were, in their origin, only medals or badges of distinction, insignia of an exalted order of Nobility of Merit, or the proofs of the wearer belonging to the inner circle at court."<sup>1</sup> As for the polemics concerning the superscriptions on the Portrait Muhr and their nature and import, it is beyond the scope of this paper, and not profitable from the viewpoint of investigation of this subject. But certain it is that they were presentation tokens ostentatiously indulged in by the emperor, solicitously acquiesced in by the chief persons of the State.

The reign of Shah Jehan brings us to view the matter from another side. It is not so much the neologisms and novelties introduced by him as the restoration of the lunar computation of dates that arrests our attention on a close examination of his coins. Students of Mughal history will be aware of the radical innovation by Akbar of the *Ilahi* era based on the solar system of computation beginning with his first regnal year. Jehangir discontinued the *Ilahi* era, but never pretended to have begun a new era of his own. But the official reckoning of the dates by the *Julus* or regnal years was never dispensed with. Jehangir's *Julus* dates come to an end with his death just as he did away with the *Ilahi* era of his father; Shah Jehan went a step further in the direction of orthodoxy by ordering the recounting of years according to the lunar computation. Aurangzib with his great zeal for Muhammadan orthodoxy, abolished the *Naures* celebrations which rung the death-knell of Akbar's anti-Muslim innovations.

The reign of Aurangzib is not specially noteworthy from the numismatic point of view. His reign, as we have already seen, was only remarkable for the great depreciation in the value of silver rendered so by the great influx of silver into India, and for the actual adoption of a silver currency in the empire.

## CHAPTER VI.

### Conclusion.

If a dispassionate account of the nature of the Mughal Land Revenue System is desired, and if a real appreciation of the system is intended we have to compare the system with those prevailing before and after its existence. Let us now compare the Hindu systems of revenue collection on the one hand, the gradually evolved system of the British administrators of India on the other hand with the rough and ready kind of revenue administration given by the Mughals to their newly conquered empire.

We have already seen that the ideal form of Hindu assessment was the demand by the State of one-sixth of the gross produce of the land. Even

1. Hodivala: *Historical Studies, etc.*, p. 149.

farther back, according to Manu, the demand of one-sixth, much less of one-fourth, of the gross produce of the land by the State denotes an exceptionally rare occurrence. Gradually, Manu's ideal was not conformed to. Under Harshavardhana the revenue demand was one-sixth. But later on the ideal became degenerated, the collection of revenue became oppressive and the demand of the kings rose to one-half of the gross produce, besides what is known as *quit-rent* was generally taken, and this eventually led to the extinction of many of the village communities. Coming to more synchronistic periods of Hindu and Mughal rule we find the kingdom of Vijayanagar exacting more than the usual rate of assessment. But Nuniz's statement that nine-tenths was taken is not credible. Wilks states that twenty illegal cesses were prevailing in the reign of Harihara. Payments in kind were prohibited. On the other hand, under Shivaji, the State's share of the produce was fixed at two-fifths, while there was no farming of the revenues.

The systems of land revenue collection under the Mughals we are quite familiar with by now. Akbar took one-third of the gross produce and remitted several vexatious taxes. His system was essentially ryotwar. Later some changes for the worse were introduced and the State's share was raised to one-half and, at times, even more. The system of farming revenues gained currency and the lot of the peasants turned wretched.

A comparison of the Mughal revenue system with that of the British administrators at the present day does not give us a fair comparative judgment. If ever we want to compare the two systems with any degree of fairness, we have to bear in mind that the present system was the product of a gradual process of evolution. Whereas the Mughal emperors gave a rough and ready kind of land revenue system to a newly conquered country, of course, with some inherent drawbacks, the British administrators alive to orderly and settled government for centuries in their native country were not able to evolve a perfect system until recently without committing many serious blunders. They were obliged to grope their way back to the old Mughal system during the early period of their rule. The present system underwent the sad experiences of the farming of revenue collection to intermediaries prior to the hurried quinquennial settlement of Warren Hastings during the years 1772 to 1777, and the still worse ordeal of the misconceived policy of Lord Cornwallis' "*Permanent Settlement*". It is not till recently that the Ryotwar settlement of Sir Thomas Munro gained recognition, and the modern system dates from 1885. "The basis of this system is the division of the whole area into fields by a cadastral survey, each field being valued at a fixed rate per acre and the assessment settled thereon. A holding is one or more of such fields or of their recognized sub-divisions. The registered



occupant of each field deals directly with the Government, and so long as he pays the assessment he is entitled to hold the land for ever and cannot be ejected by Government.....private improvements involve no addition, either present or future, to the assessment."<sup>1</sup> Such a state of affairs was brought about by Acts such as the Bengal Tenancy Act of 1885 based on principles of fixity of tenure and judicial rents while giving statutory holding for seven years in the case of Oudh, the Act of 1877 guaranteeing against eviction and enhancement of rent; the Land Alienation Act of 1900 providing that "money-lenders, shop-keepers and professional men cannot buy land from hereditary cultivators or hold such land on mortgage for more than twenty years without the consent of the State" and such like measures.

Thus we have seen the pitfalls which the present Government had experienced before it had attained its goal. But the Mughal sovereigns were not given so many chances for drawing experience from makeshifts. As indicated above, they gave a system of a rough and ready kind suitable to their needs. When comparing these systems we should not minimize the influence of the age in which they lived, the level of civilization they attained, the consonance of these systems with other co-existing systems, the circumstances which governed their actions—not to shield the vulnerable points in the system but to really comprehend it.

Such was the nature of Mughal land revenue system as we have just now seen. Bare the system stands with its defects and merits and a comparison of it with other systems eclipses its real nature. No doubt the system was essentially severe, but such a state was warranted by the prevailing circumstances, when it became the serious concern of the sovereign to see the peasants not to wax fat and kick in an age of perturbed and perplexed circumstances. Even then we have benevolent reigns like those of Sher Shah and Akbar. Though the land-tax under British administration was mitigated the Government is drawing freely upon the other resources of the country in the form of several taxes. On the other hand the various benefits conferred by the British Government may be pointed. But even at the present day Sir Basil Blackett is enquiring about the able resources of the country.

On the one hand the income-tax was amended to provide even "for the assessment of income, profits or gains of an association or club which is neither a company nor a firm nor a Hindu undivided family."<sup>2</sup> The "supplementary demands" of the finance member amounting to over a million

1. *Imperial Gazetteer*, 1908, XVI, p. 313.

2. *The Quarterly Register*, edited by H. N. Mitra. Vol. I, No. i, p. 123.

rupees,<sup>1</sup> and his quaint confession: "I have, I am afraid, already taxed the patience of the House as severely as *the Government are accused of taxing the people of India*"<sup>2</sup> show that even at the present day, in the very words of the finance member, that the Government "*do not want to remit taxation or give away a part of the provincial contributions this year and then be faced with the necessity of imposing additional taxation next year or the year after.*"<sup>3</sup> Yet the Hon. Sir Basil Blackett has the good sense to assure us that the Government "*certainly hope for progressive reduction in our military expenditure, for progressive improvement in the yield of our existing sources of revenue. We hope too that the Committee on Taxation will be able, in due course, to recommend important improvements in the machinery and scope of our taxation system so that it may be possible for India to raise in taxation an amount equal to what she raises to-day at less sacrifice to the tax payer.*"<sup>4</sup>

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1. *The Quarterly Register*, edited by H. N. Mitra, Vol. i, pp. 148-151.

2. *Ibid.*, p. 167.

3. *Ibid.*, p. 173.

4. *Ibid.*, p. 175.

## SVETASVATAROPANISHAD.

English Metrical Translation with Explanatory Notes.

BY D. VENKATRAMIAH, ESQ., B.A., L.T.

(Continued from Vol. XIX, No. 3.)

### SECOND DISCOURSE.

1. Let Savita first conjoin the mind and all  
The vital breaths and help us so to know  
The Truth. Let him the splendour of Agni find,  
With it irradiate the heart within.

It has been pointed out in the first discourse that both meditation (*tapas*) and knowledge (*jñāna*) are essential for comprehending the Absolute—the *Nirguna*, and the *Upanishad* now invokes Savitr, the Sun, to help the seeker in the performance of *tapas*.

युञ्जानः—योजयन्—causative in sense; having joined (the mind with Brahman when about to commence meditation).

सविता—literally, the sun; here it may be taken to mean *Ishvara*.

तत्त्वाय—आत्मतत्त्वा परोक्षाय—in order that the real nature of *Atman* may be realized.

धियः— the *pranas* or vital airs. Cp. “प्राणवैधियः”. The word may also be taken to mean the *jñānendriyas* or the knowledge-giving senses.

अग्नेर्ज्योतिः—the splendour of *Agni* and by implication of all the *Devās*.

निचारय—निश्चिह्नं—having determined.

पृथिव्याः—implies the human body composed of the five elements—earth, water, light, air and ether; hence पृथिव्या अधि—तत्संघति—within the body.

आभरत्—might bring.

This verse is rather cryptic and may be explained thus :—Let the Sun help us to concentrate our minds on Brahman by restraining the senses and may he, having discovered the light that is in *Agni* and all other luminaries, irradiate our hearts with it so that we may perceive the *Atman* in its true estate.

2. And at the bidding of the divine Sun  
With concentrated mind, prepare we now  
Heartened again by Him, for Heavenly bliss.

सवितुः—of the Sun, refers to God Himself being the substratum of the glowing orb.

सवे—अनुज्ञायां सखा—commanded by Him.

सुवर्गेयाय—स्वर्गप्राप्ति हेतुभूताय—for that which secures Heaven, i.e., study and contemplation leading to *tattvajñāna*.

The gist of the Mantra is :—By the grace of *Ishvara* we address ourselves, with minds composed and strengthened by spiritual power, to the acquisition of that knowledge which leads to exalted bliss.

3. May the Sun our senses heavenward bent unite  
With mind, unite the same with wisdom true  
When they reveal the Atman's splendour great  
And may He these our senses govern and guide.

Isvara (Savita) is again invoked to direct our senses towards the inner self turning them away from the world outside. सुवर्षतः and करिष्यतः are both adjectives qualifying देवान् which is objective plural. The passage would read thus :—

सुवर्षतः देवान् मनसा युक्त्वाथ (योजयित्वा) दिवं बृहज्ज्योतिः करिष्यतः (देवान्) धिया (योजयित्वा) सविता तान् (देवान्) प्रमुखाति (अनुजानातु).

'स्वर्षतः' is another reading for 'सुवर्षतः'—(the senses) which are on their way to Brahman.

बृहज्ज्योतिः— the great luminary, Parabrahma.

देवान्—the senses. The word is taken to mean by the commentator Vijnana, Indra, Agni etc., and the gist of the Mantra as given by him is :—Even Brahma (Hiranyagarbha) and Indra having by the grace of Isvara (सविता) attained to the knowledge of Brahmaatmaikya as the result of mental concentration, found liberation.

4. The sages wise their minds and senses all  
Withdraw to fix on Him who compasseth all,  
Who's vast and who is wisdom's very self;  
And He the witness sole—the Absolute,  
Created all the sacrificial deeds;  
Great be the praise of Savita divine.

The Mantra is elliptical and the same is the sense as conveyed above. The seekers of freedom should glorify the Lord from whom proceed all wisdom and all meditation. Those who follow the wake of wisdom withdraw their minds and senses from the object-world for the sake of realizing the divine and perform the sacred acts ordained by Him for self-purification.

विप्राः—Brahmanas, sages.

युजते—turn inwards.

धियः—put here for 'senses' which stimulate धीः, intellect.

विप्रस्य—filling all space.

बृहतः—filling all time and all objects; महतः—mighty.

विपश्चितः—ज्ञानस्वभावस्य—of the nature of consciousness. "साक्षात्करणाय" is understood, i.e., for realizing the Absolute which is pure consciousness, unlimited by time, space or object, the wise turn all the current of their thoughts inwards.

"विहोत्रावधे वयुनाविदेक इत्"—should be taken as a separate sentence.

होत्राः—sem. acc. plu., sacrificial acts.

'वि' should go with दधे; विदधे—created.

वयुनावित्—वयुनवित्—the sole witness of all intellection.

एकइत्—एकएव—the Absolute; having none other of the same kind or of a different order.

"महोदेवस्य सवितुः परिश्रुतिः" is the third sentence; "कर्तव्या" is to be understood.

महोपरिश्रुतिः—great praise.

देवस्य—to the shining Lord.

सवितुः—literally, to the Sun; to Parabrahman who is the substratum of all that is static and dynamic.

कर्तव्या—should be done (given).

5. This Brahman held first by fixed mind and sense  
 Let me with my prostrations celebrate ;  
 And let my song of praise proclaim the Lord  
 As does the fame of him who treads the path  
 By virtue marked, and let the sons of God  
 Immortal hear from their shining homes aloft.

The fourth Mantra has stated how the sages intent on heavenly bliss obtain immediate knowledge of Brahman by bringing under control external as well as internal senses. Here is described how the seeker after liberation (समुद्ध) resolves to proceed on the path of self-realization. There are three ideas in this Mantra :—

- Let me prostrate praising the Lord who, it has been taught, is cognizable by concentrated thought (युजेवां ब्रह्मपूर्व्यं नमोभिः);
- Let my divine song-offerings spread far and wide as does the fame of him who treads the path of virtue (विश्वेक्रेतुपथ्येवसुरैः);
- Let the High Gods, the sons of the Eternal from their shining seats above hear my divine incantations (ऋष्यन्तु विश्वे अमृतस्य पुत्रा आयेवामासि दिव्यानि तस्थुः)

युजे is Vedic for युज्जे-समाद्धे— I control. पूर्व्य अनादिसिद्धं, चिरंतनं— ancient, immortal.

पथ्येवसुरैः—प्राज्ञस्य पथ्येव, सन्मार्गं वर्तमानं— like one who walks along the path of righteousness.

अमृतस्य पुत्राः—ब्रह्मणः पुत्राः हिरण्यगर्भादयः—Hiranyagarbha and others who are the sons of Brahma.

6. Where fire is churned, where wind is baulked and where  
 The Soma overflows, there the mind is born.

The knowledge of the identity of the Self with the Absolute is enjoined as the means for salvation to one who is fit for illumination, by merit earned in this or other lives, in whom there is no trace of sin, whose heart is pure and whose mind rests unperturbed and peaceful. But for one who is as yet not qualified for such knowledge, whose spiritual equipment has not reached its full height, *Yoga* or meditation as detailed here and in some of the verses following is prescribed in order that he may acquire competence for Brahmajñana through mental purification.

Interpreted literally the Mantra refers to the performance of *yajna*. The fire is kindled (अग्निर्यत्राभिर्मध्यते) and stirred by the wind (वायुर्यत्राधिरुध्यते), and the Soma juice overflows the vessel (सोमोयत्रातिरिच्यते), then the mind is fixed on sacrificial rites (तत्र संजायते मनः).

The Yogic interpretation is as follows :—

The six centres or chakras in the human body are :—Mulādhāra, the root-support at the base of the spinal column, Svādhishtāna, Manipūra, Anāhata, Viśuddha and Ajna. The Kundalīni Shakti known as Mulaprakriti lies coiled in the Mulādhāra and being roused by *pranava* courses through all the chakras until finally she reaches *śahasvara*, the highest cerebral centre where she joins her lord Śiva. This union enables the Yogin to taste the nectar of immortality. (For a fuller description of the Yogic process, particularly of the Tantrik school, consult "Shakti and Shakta" by Woodroffe, Chapter XVI.)

Narayana regards the Mantra as describing the birth of the human body and mind. Since the succeeding verses treat of *Yoga*, the second interpretation is to be preferred.

7. And let the Yogin gratify the Lord,  
 The eternal Brahma with the nectar sweet  
 That Savita begets. Do thou thy mind  
 In Him rivet ; thy meed shall tarry not.

सवित्रा—by the sun.

प्रसवेन—produced or flowing.

जुयेत-सेवेत— should serve, should please.

ब्रह्म-ध्येयं वस्तु— the object of meditation.

पूर्व्य-सर्वस्मात्पूर्वं वर्तमानं— existing before all things.

तत्र-ब्रह्मणि—in Brahman.

योनि-स्थानं—seat.

कृण्वसे-कुरुष्व— secure your refuge in Brahman. कृण्वसे is Vedic form, in the imperative sense.

8. Sitting in posture straight, chest, neck and head  
Erect, the senses all withdrawn by the mind  
Into the heart, let the wise in the Brahma-boat  
Across the mass of fearful waters sail.

The manner in which Yoga is to be performed by one who is qualified for it is prescribed. For concentration of mind the first thing requisite is the right posture and then the senses have to be brought under subjection by the process known as *pratyahara* which is thus defined :—

इन्द्रियाणां समस्तानां विषयेभ्यो निवारणं ।

प्रत्याहार इति प्रोक्तं प्रत्याहारार्थे वेदिभिः ॥

—Suresvara's *Manasollasa*, *Dakshinamurti Stotra*, IX—28.

Those who understand Yoga say that *pratyahara* consists in withdrawing all the senses from their objects.

It is by *प्रणवोपासन*, meditation on the symbol 'om' that one is able to cross the dreadful ocean of *Samsara*.

9. With all the vital breaths restrained within  
And moderation guiding all his acts  
Let the Yogin through the nose the suppressed air  
Outbreathe and e'er alert control the mind  
Which is like a chariot drawn by horses wild.

The right mode of performing *pranayama* is indicated. It consists of *rechaka* (expelling), *puraka* (filling in) and *kumbhaka* (stopping or holding the breath)—

‘रेचकः पूरकश्चैव कुम्भकः प्राणसंयमः’.

प्राणान्प्रपीड्य—having restrained the breath.

इह—inside the body or in *Muladhara* where the Kundalini lies.

संयुक्तचेष्टः—with one's activities kept under control.

Cp. युक्ताहार विहारस्य युक्तचेष्टस्य कर्मसु ।

युक्तस्वप्नावबोधस्य योगो भवति दुःखहा ॥

—*Bhag.* VI, 17.

नासिकयोच्छ्वासीत—When doing the *pranayama*, the air should be drawn in slowly through the left nostril, held for a stated period of time and then breathed out of the right nostril. It should be repeated reversing the process.

अप्रमत्तः—being alert ; free from desire, anger, etc.

10. Where ground is even and pure and free from rubble,  
From fire and dust exempt, away from sounds,  
From waters deep and all resorts of men  
Where the mind is pleased and the eye offended not,  
Within the cave well-sheltered from gusty winds,  
There let the Yogin fix his thoughts on High.

The place chosen for meditation should be even (समे), free from rough stone (शकंरा), fire (वह्नि), and sand (वायुका). It must be away from haunts of men and not too near deep waters. Preferably a sequestered mountain cave should be selected situated amidst pleasing scenes.

‘चक्षु पीडेने’ is archaic for चक्षुष्याडेने i.e., offensive to the eye.

No distractions of any kind should be permitted. It is only then that a Yogin can concentrate his mind on the Most High.

Chapter VI of the *Bhagavadgita* gives an elaborate description of the proper equipment of a Yogin.

11. As rising mist, as smoke and sun and fire  
And wind, as glow-worm, lightning, crystal and moon,  
Shapes such as these, before the Yogin's mind  
Appear, precursors of the Brahman great.

When one practises *yoga* in its eight-fold aspect—यम, नियम, आसन, प्राणायाम, प्रत्याहार, धारण, ध्यान, समाधि, which mean respectively, self-discipline, devotion, right-posture, breath-control, sense-subjugation, concentration, meditation, ecstatic union, apparitions like mist, smoke, etc., rise in order, pointing to the not-distant goal of self-realization.

‘शशीना’ is Vedic for ‘शशिना’.

ब्रह्मण्यभिव्यक्तकराणि—ब्रह्माभिव्यक्ति द्यौतकानि—those (shapes) which rise before the mind's eye when the Supreme Light is about to flash tearing asunder the curtain of *avidya* that shrouds the Brahman.

12. When the elements five, earth, water, light and air  
And sky do rest controlled; when qualities five  
Prevail, from *Yoga* born, to such a one  
Disease there's none, nor touch of eld, nor death,  
His body now aglow with yogic fire.
13. A bearing light, sound health and steadfastness  
Complexion sweet, a ringing voice and pure  
The breath, excretions scant,—all these they say  
Are effects first perceived in a Yogin true.

What is known as the conquest of the elements and the results accruing therefrom are described.

Cp. चित्ते निश्चलतां याते प्राणे मध्यपर्यं गते ।

चिह्नान्येतानि जायन्ते पञ्चभूत जयात्पुण्यक् ॥

—Suresvara's *Manasollasa* 33, on *Dakṣiṇāmurti Stotra*, IX.

When the mind gets steady and the breath is controlled within, due to the conquest of the five elements the following marks appear :—



मलमूत्रकफाल्पत्वमारोग्यं लघुता तनोः ।  
सुगन्धस्वरवर्णत्वं प्रथमं योगलक्षणं ॥—

*Ibid.*, 34.

From *dharana*, i.e., by fixing the mind on the respective seats of the elements in the body, control over them can be obtained. "The seat of earth extends from the foot to the knee, the seat of water from the knee to the navel, the seat of fire from the navel to the throat, the seat of air from the throat to the region between the eye-brows, and the seat of *akasa* from that region to *Brahmarandhra*."

योगगुणे प्रवृत्ते—When by meditation the Yogin obtains mastery over the five elements, he further acquires the power to utilize any one of these elements. Stanzas 33—38 of Section IX of *Manusollasa* describe the *Yogin's* control over the elements. When it is said that the *Yogin* knows no death, it means that he can summon it at will.—न मृत्युरिच्छां विना.

योगाग्निमयं शरीरं—his body suffused with the Yogic fire.

14. Even as a mirror begrimed with dross  
When purified, in its own lustre shines,  
Such wise the one that sees the nature true  
Of Self his end doth gain from sorrow freed.

बिंबं—a mirror or any metallic disc burnished and used as a mirror.

मृदशोपलिसं—मृदादिना मलिनीकृतं—soiled by dust, etc.

'सुभ्रान्तं' Vedic for सुवेतं. अग्न्यादिना विमलीकृतं—cleaned by fire, etc.

तद्वा—तदिव, तद्वत्—in a similar way.

आत्मतत्त्वं प्रसमीक्ष्य—having clearly discerned the truth that in essence Jiva and Isvara are the same.

देही एकः—that single individual (who perceives the truth).

कृतार्थः—who that has reached the goal of life.

वीतशोकः—प्रवृत्त संसारशोकं तत्कारणञ्च—when the griefs of life are at an end and the root-cause of Samsara (अविद्या) itself is destroyed.

15. With the light of his inward Self let the disciplined one  
Perceive the essence divine and then shall he  
Comprehend the Lord who is free from birth,  
Immutable, untouched by affections gross,  
And thus from all the binding cords escape.

यदा—यस्यां अवस्थायाम्—in which state, i.e., when all traces of duality disappear.

आत्मतत्त्वेन—स्वेन आत्मना; दीपोपमेन—दीपस्थानो येन—with his luminous self. When the impurities which appear to contaminate the Self through nescience are removed the Atman shines in its pristine lustre.

ब्रह्मतत्त्वं—ब्रह्मस्वरूपं—the nature of the Absolute.

इह—आत्मन्येव—within himself.

युक्तः—योगी प्राप्तः—one who has successfully practised Yoga.

Brahman is described as अजं, not born, ध्रुवं, कूटस्थं नित्यं and not परिणामनित्यं, i.e., fixed and immutable like an anvil and not like, say, milk which, remaining the same in essence, changes into curds.

सर्वतत्त्वैर्विशुद्धं—अविद्याकार्यैः—uncontaminated by *avidya* and its effects ; in other words that which cannot be classified under any category.

16. This Lord for sure pervades all quarters known,  
 'Tis He before all things was born and He  
 The dweller in the womb of all and He again  
 The all that born is and born shall be ;  
 And know ye men that He resides within  
 The heart His face in all directions turned.

The Lord who is unconditioned by space and time, who is Infinite and all Bliss, is the inner principle of the universe informing the world of sentience and insentience alike.

एव—आत्मा एव—the Atman himself.

प्रदिशः—प्राच्यादिदिशः—east and all other directions.

पूर्वो ह जातः—who was born in the beginning of a *Kalpa* ; the first embodied soul, *viz.*

Hiranyagarbha.

स उ गमे अन्तः—ब्रह्माण्डोदरे ; Cp. तत्सृष्ट्वा तदेवानुप्राविशत्—Having created it He entered it (world). *Taitt.* II-6.

He is both Hiranyagarbha standing as the archetype of all subtle embodied souls and Virat standing for the totality of gross bodies ; in other words, He is both सूक्ष्मसमष्टि and स्थूलसमष्टि.

सयेव जातः—Paramatma Himself as the manifested world of spirit and matter.

जनिष्यमाणः—He is the begetter of the world, being both its efficient and material cause.

जनाः—voc. case ; हे जनाः—O, ye men (addressed by the Rshis).

जनांस्तिष्ठति—is another reading.

जनान्प्रत्यङ् तिष्ठति—He remains as the self of all.

सर्वतो मुखः—सर्वत्र संमुखः—present everywhere ; or सर्वासु दिक्षु मुखानि यस्य—whose faces are everywhere.

17. Which God inheres in fire, which God in water,  
 Which God has entered all this universe,  
 Which again doth dwell in herbs and plants,  
 And which in lofty trees, to Him, the Lord  
 Of Light our prostrations and prostrations.

The immanence of God is here meant. Being pure sentience and bliss He pervades the whole creation—animal, vegetable and mineral. The repetition of the word नमः is to indicate the close of the chapter and the fervour with which the seekers adore the Lord.

## THE SUMERO-DRAVIDIAN AND THE HITTITE-ARYAN ORIGINS.

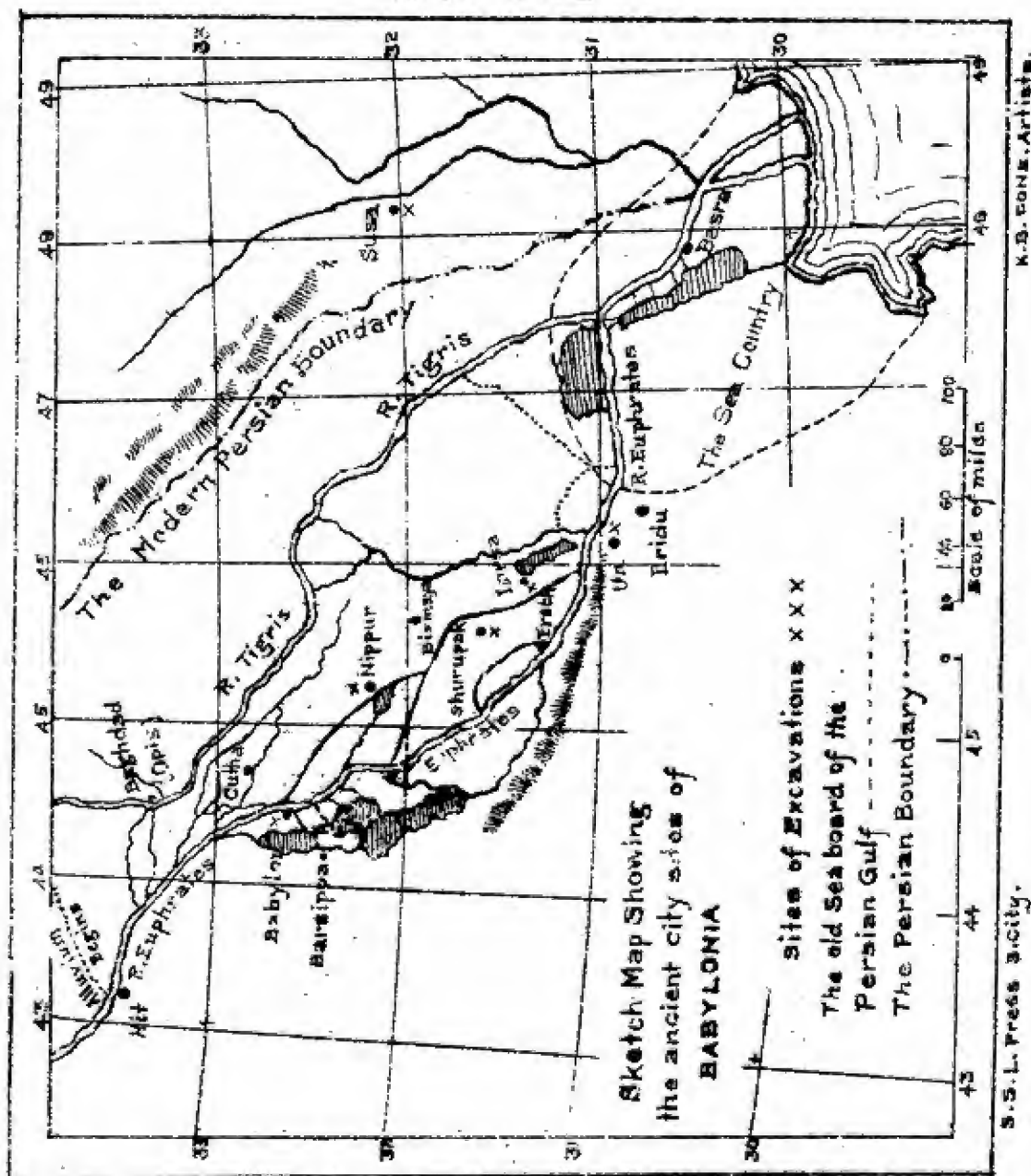
BY R. S. VAIDYANATHA AYYAR, ESQ., B.A., M.R.A.S., F.R.HIST.S. (Lond.)

NOTE.—A paper read before the Mythic Society has since been revised and incorporated in the author's forthcoming publication, "The Sumero-Indus Civilizations—Their Origin, Contact and Parallels".

THE term 'Sumer', though strictly applicable only to the province of Lower Babylonia, is generally extended to all the tracts in Western Asia which were once occupied by the Sumerians at any given age. The land of Sumer is the long tract of the fertile valley of the Euphrates and the Tigris extending from the Persian Gulf up to a line obliquely drawn from a point near Hit on the Euphrates to a little below Samarah on the Tigris in the north, where the flat alluvium of the lower valley ends, or roughly from the thirtieth to the thirty-fourth parallel. To the north of this alluvium, as far as the thirty-fifth parallel, lay the territory of Akkad, or Agade, which, though slightly elevated and undulating, still retained the general characteristics of the alluvial plain. These two tracts correspond to the provinces known as southern and northern Babylonia or Chaldæa, from which the culture and the trade routes of the ancient world radiated in all directions. Farther north, the province of Assyria comprised almost the entire tract covered by the upper reaches of the two rivers extending from the thirty-fifth parallel in the south to the thirty-seventh in the north and from the river Khabour on the west to Mount Zagros on the east. To the west of the main river Euphrates and the north of Syria was situated the land of the *Khatti* or the Hittites, comprising Cappadocia and Anatolia. Though this tract was comparatively small in area, the great civilization, called the Hittite, extended over the greater part of Syria and Asia Minor. These territorial limits, however, were never more than conventional at any time; for the political centre of gravity very often shifted from town to town with the rise and fall of city-states, of which there were many such as Babylon, Akkad or Agade, Lagash, Ur, Susa, Kish, Erech, Larsa, Umma, Eridu, Sippur, Opis, Nippur and so forth. "Now a city in the north, now a city in the south, owing to its own vigour and power, becomes prominent and rules over its immediate neighbours. Old Sumer was never united under a central rulership until the great Semitic dynasty of Sargon founded at Akkad near Sippur reduced for the first time Sumer and Akkad to its sway."<sup>1</sup> Of

1. *The Cambridge Ancient History*, Vol. I, p. 368.

Sketch. No 1.





all the city-states in Western Asia, Babylonia alone maintained her continued pre-eminence for the longest period, in glaring contrast with the ephemeral prosperity of the other city-states, on account of her favourable geographical position which endowed her with great strategical and commercial importance and enabled her to survive the rudest of shocks to her material prosperity. Babylon on the Euphrates was within easy reach of Baghdad on the Tigris by the confluence of the two great rivers in their neighbourhood. The Euphrates connected Babylonia with Syria and thence with the Mediterranean and Egypt. The land routes from Trebezond on the north-west, from Bukhara and Samarkand in Central Asia and from Peshawar and Multan on the North-West Frontier of India, all converged towards Babylon through Baghdad. The real strength of Babylon's position lay in the convergence in her neighbourhood of all transcontinental routes of traffic both by land as well as by sea and in the uncommon fertility of the river valley. But the province of Sumer enjoyed all these facilities and advantages for several thousands of years even before the city of Babylon was built.

Into this land, most favoured of nature as one of the nursery grounds for the growth of civilization, descended the Sumerians either by sea, or by land, the exact period of their immigration and their original abode being still unknown. When, however, we first come across them between the sixth and the fifth millenniums in the land of Sumer, they have already attained a high degree of civilization in all aspects of human activities. But very little is known of their previous history either in the land of their origin, or in that of their domicile, beyond the mythical traditions recorded by some learned men in a few tablets found at Nippur and probably written in 2198 B.C. in the third year of the reign of King Isin. "The principal tablet reckons 134 kings from the flood to the eleventh King of Isin (third year=2198 B.C.) and 28,876 years from the flood to the year in which the tablet was written. Another tablet gives 139 kings and 25,063 years."<sup>1</sup>

As in the case of the Vedic and epic kings of the Hindu mythology, the reigns of the so-called early Sumerian rulers were also mythical. Among the rulers of the Kish dynasty, Galumum is said to have reigned for 900 years, Zugakib for 840 years, Arpi for 720 years, Etana 625 years and Barsalnunah 1,200 years. In the Erech dynasty, Meskingashar is said to have ruled for 325 years, Enmerkar 420 years and Lugulbanda for 1,200 years.

But quite apart from traditions and beliefs, the actual history of the Sumerians as evidenced by their inscriptions now commences somewhere about the sixth millennium B.C. with clear indications that their civilization was not indigenous to the country in which it first came to our view, but was

1. *The Cambridge Ancient History*, Vol. I, p. 365.

imported from outside. In his Schmidt lectures, 1916, Dr. L. W. King observes:—"The earliest picture we have hitherto obtained of the Sumerians has been that of a race employing an advanced system of writing and possessed of a knowledge of metal. We have found in short abundant remains of a bronze age culture, but no traces of the preceding ages of development such as meet us on early Egyptian sites. It was a natural inference that the advent of the Sumerians in the Euphrates Valley was sudden and that they had brought their highly developed culture with them from Central or Southern Asia."<sup>1</sup> The opinion has of late been gaining ground that the original abode of the Sumerians was somewhere east of Mesopotamia, though some pointed to Elam, some to Bactria and others to Seistan. Prof. Myres observed that the Babylonian people and their language showed a marked resemblance to the men and speech of the region east of the Tigris. "The agglutinative structure of the Sumerian language—to give it the old native name—of the lower and the richer half of the delta region has been compared with that of Turkish and other Mongol languages native to the plateau of Central Asia.....the culture which alone is nearly akin to that of early Babylonia is that of the foothills next to the head of the Persian Gulf and immediately beyond the Tigris."<sup>2</sup> But Professor R. E. Anderson traces its origin to the extinct civilization of Bactria where traces of long forgotten cities have from time to time been recovered. "Bactria is sometimes referred to in the ancient Indian fables as if some of the Hindu races as well as the Iranians had radiated from that early centre of culture; and the similarity between the Zend or ancient Persian language and that of the Hindus is taken as another proof of a common origin. Modern travellers describe an oasis in the district of Bactria as being "*among the most fertile of all the known regions*" and producing grape vines of unrivalled size and quality."<sup>3</sup> Speaking of the Hittites, the same author observes: "Obtaining their civilization from an eastern source as Bactria, or some other unknown centre, they transmitted it westward to the distant shores of the Ægean. Thence the early Greeks conveyed it to the European continent."<sup>4</sup> It is no doubt difficult to fix a place of origin for a wide flung culture and civilization extending from the Adriatic Sea to Japan and embracing numerous races and languages which present more striking points of difference than points of similarity. But there are certain broad features peculiar to the civilization of each country or area which should enable us to determine its antiquity and

1. *The Schmidt Lectures* by L. W. King, p. 38.

2. *The Dawn of History* by Myres, pp. 91—92.

3. *The Extinct Civilization of the East* by R. E. Anderson, p. 150.

4. *Ibid.*, p. 85.



priority as compared with others. Here we have two distinct civilizations, one, the oldest known Sumerian civilization of Babylonia indicating an eastern origin, and the other, the Indus civilization newly discovered in the east, presenting many points of resemblance and contrast with the other. Though a good deal of spade work is still required to be done, in order to reveal the full vigour and growth of the latter, the materials now available afford ample data for drawing reasonable inferences as to the westward movement of the Indus culture and to determine the debt which the Sumerian, Semitic and Hittite civilizations owe to it. This is, no doubt, a question on which there is likely to be considerable difference of opinion, but the fact cannot now be gainsaid that the Indian civilization which has till now been considered as the youngest one from the archæologists' point of view, is now found by the same archæologists to be one of the oldest civilizations forming an integral part of the most ancient chalcolithic culture of Asia and Europe.

It is now admitted on all hands that Babylonia is conspicuous by the complete absence of paleolithic or neolithic cultures, while Arabia, Palestine, Syria, Asia Minor, Turkistan and India present relics of both the phases of the Stone Age. The oldest relics commonly found in all the Asiatic countries and Egypt are the ceramic wares and the potsherds. Of all the tests now applied to the identification of ancient sites, the pottery test has come to be regarded as a more or less infallible one as the strata of clay used in pottery and the several designs and decorations adopted at different periods afford a reliable method of fixing the age of each stratum and of determining the rate of growth of alluvial and other clay deposits. "Breasted relying on the actual rate of growth of alluvial deposits (which is about  $4\frac{1}{2}$  inches a century) dates the beginning of the present Nile alluvium and the first human occupation of it, 60 to 80 feet below the modern surface, to about 18000 to 15000 B.C., a second floor of occupation (at 35 feet) to about 10000 B.C., and the earliest tombs still exposed along its edge to about 4000 B.C. Pompelly and Huntingdon begin the first settlement at Anan in South Turkistan about 9000 B.C.; the second that succeeded it about 6000 B.C.....De Morgan and Montellius allow 20000 years for the whole of the series at Susa."<sup>1</sup> In accordance with these calculations Dr. King also points out:—"The remote date of Nippur's foundation as a city and cult centre is attested by the fact that the pavement laid by Naram Sin in the south-eastern temple court lies 30 feet above the virgin soil, while only 36 feet of super-imposed debris represent the succeeding millennia of occupation down to Sassanian and Arab times."<sup>2</sup>

1. *The Cambridge Ancient History*, Vol. I, p. 56.

2. *The Schmidt Lectures* by L. W. King, p. 20.

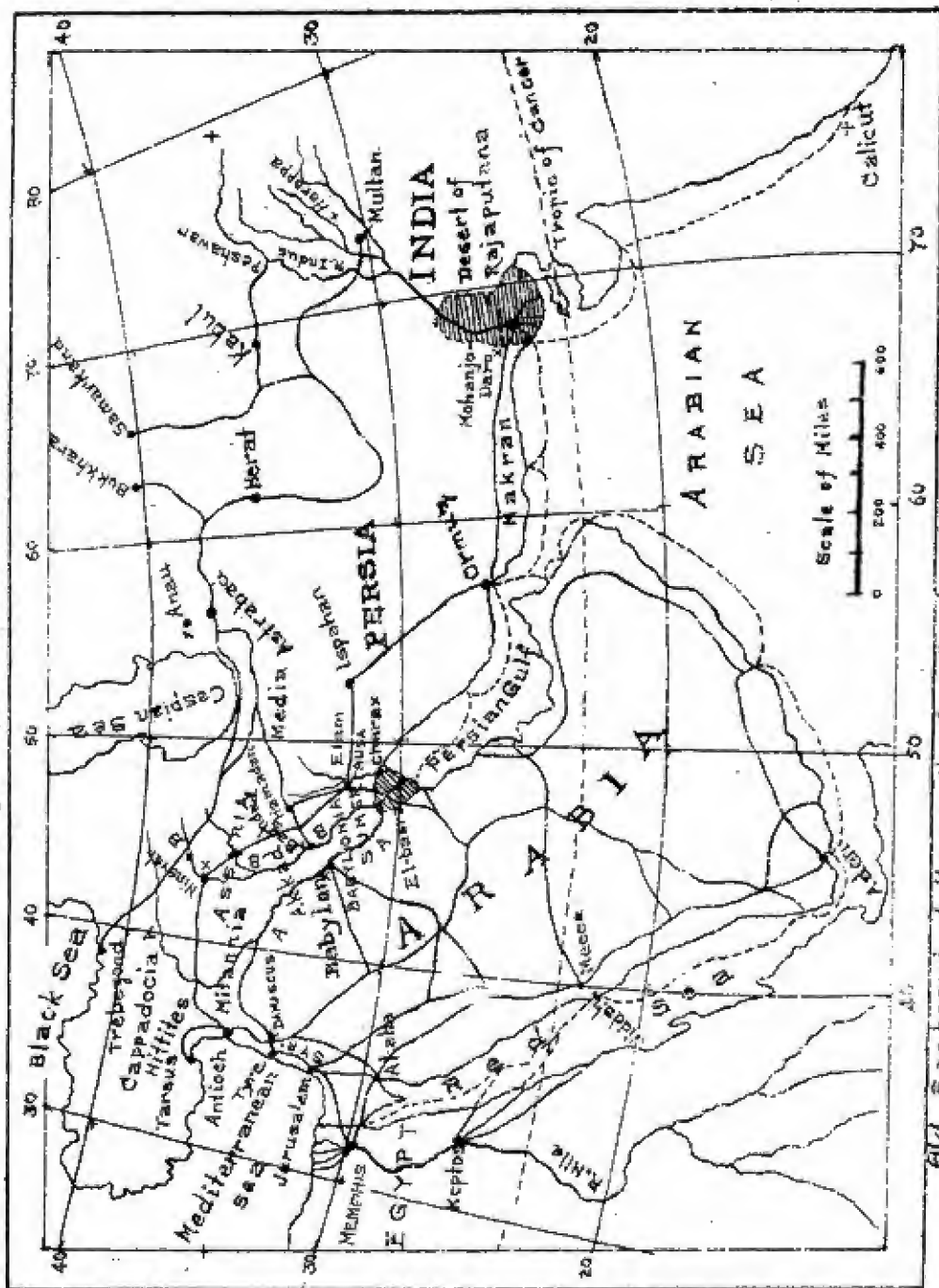
Now, the epoch-making discovery of the Sumerian relics by the Indian Archæological Department in the Indus Valley has opened a new chapter in the history of ancient India. Here they have unearthed buried cities with residential houses, built of solid brick masonry in mud mortar and arranged in streets. Other numerous antiquities have also been found, such as, chert implements, shell and mother-of-pearl objects, terracotta toys, painted pottery of different shapes and patterns and several steatite seals, bearing the effigies of bulls and unicorns with pictographic legends inscribed in characters similar to Sumerian. Though some of the remains found at Mohenjo-daro belong to the first millennium before the Christian era, the ceramic wares and potsherds are identical with the pottery of Susa. To the testimony borne by Sir John Marshall, Dr. Ananda K. Coomaraswami distinctly adds "the miniature funeral potteries of both areas are almost undistinguishable; it may be noted too that the oblong short-legged terracotta sarcophagi of pre-historic South Indian sites are of a Mesopotamian origin and type. Cornelian beads found at Kish are decorated with white lines on a red ground obtained by local calcination of the surface; this technique, unknown west of Mesopotamia, is so common in India though at a later date, as to suggest a probable Indian origin."<sup>1</sup> It is, however, somewhat strange that these ceramic wares identical with the Susa pottery have come to be found so near the surface in the Indus Valley in contravention of the general law of alluvial growth applicable to all other countries. But this is obviously due to the gradual sweeping away by the winds of the sandy alluvium to the adjacent desert of Sind in the east and the salt swamps of Baluchistan in the west. A similar cause is said to have operated in the valley of the Helmond river in Seistan, where pre-historic remains resembling those of Elam had been laid bare by wind erosion. There is, however, one peculiar feature which the Mohenjo-daro tract presents to us and which is likely to lead to far more wonderful discoveries in the near future, namely the existence of multiple strata below the present city sites. In the words of Dr. A. K. Coomaraswami "the existence of lower strata suggests that the Indus Valley culture must have had a long previous history in the same area and that it may be regarded as indigenous."<sup>2</sup>

Now two things emerge out of the foregoing facts, viz., that the Sumerians were an intrusive element in Mesopotamia and that their culture, which was imported into that country, was indigenous to the Punjab. How then was it transported from the Indus Valley to the land of Sumer? *First*, the inscribed Indian plaques found in Babylonia clearly establish the fact that

1. *The History of the Indian and Indonesian Art* by Dr. Ananda K. Coomaraswami, p. 4.  
2. *Ibid.*, p. 3.

# Sketch No 2.

SKETCH Map Showing the ancient Trade routes between  
INDIA, Western Asia and EGYPT



Old seaboard of the mouth of  
the Indus & Euphrates  
Sites of Excavations XXX

AAA - The Euphrates  
BBB - The Tigris



communication by land, or sea, or by both, existed between that country and the Punjab from the remotest times and that the cotton of the Indus Valley which is referred to by the word '*Sindhu*' in the Assyrian lexical texts, was largely imported into Babylonia to replace the sheep's fleece there used for elementary clothing. On this point Sir John Marshall observes: "But there has been some doubt hitherto as to whether the cotton known to Babylonians and Greeks was not obtained from cotton trees, *e.g.*, from the silk cotton tree (*Eriodendron enfractuosum*) rather than from the cotton plants of the genus *Cossypium*. This doubt is now set at rest by the discovery at Mohenjo-daro of true cotton of the latter kind with the typical convoluted structure which is the peculiar characteristic of the fibre";<sup>1</sup> *secondly*, the ethnic type of the Sumerians is found to be identical with the Indian Dravidian type; and *thirdly*, the Dravidian language itself seems to have been a sister dialect, if not the parent, of the Sumerian and the Akkadian languages.

First, as regards the inter-communication between Babylonia and the Punjab, the testimony furnished by the Indian plaques in Babylon ought to suffice to place it beyond doubt and, if further proofs were needed, they would be found in the extensive trade and commerce exchanged between the two countries from the earliest times. The chief among the articles of luxury lavishly used by the ancient western Asiatic nations were gold, silver, pearls, oysters, gems, ivory, inlaid metal work, parasols, fly flappers, fine textile fabrics of linen and muslins, frankincense, cinnamon, etc. Of these, gold, silver, gems, pearls, muslins and parasols are more or less products of Indian origin frequently referred to in the *Rig-Veda*, the Code of Manu and the Epics. The following extracts from G. Rawlinson, a great explorer and the brother and co-worker of Sir Henry Rawlinson, will give a rough idea of the extent and magnitude of the imports and exports between Babylonia, Assyria and India in prehistoric times:—

*Gold*.—"Perhaps, it is more probable that like Judea and Phœnicia, Assyria obtained her gold in a great measure from commerce, taking it either from the Phœnicians who derived it both from Arabia and from the West African coast, or else from the Babylonians who may have imported it by sea from India."

*Ivory, Shawls and Muslins*.—"A regular trade for ivory seems to have been carried on from very early times between India and Dedan (Bahrein?) on the Persian Gulf. Again, it is quite conceivable,—indeed, it is probable—that there was a land traffic between Assyria and Western India by the way of Kabul, Herat and Caspian gates and Media. The more portable products

1. *The Press Statement* issued by Sir John Marshall.

of the Indus region—elephants' tusks, gold and perhaps shawls and muslins—are likely to have passed by this route with greater frequency."

*Gems, Lapislazuli, Cornelian, Agates and Onyxus.*—"These may have been imported from Susiana where they were found in the bed of Choaspes (Kerkhâh), or they may possibly have been brought from India."

*Frankincense, Cinnamon, etc.*—"This precious spice must have reached the Arabians from Ceylon or Malabar, the most accessible of the countries producing it. Muslins, shawls and other tissues are likely to have come by the same route as the cinnamon. Dyes, such as the Indian lacca, raw cotton, ebony and other woods must have come by the same line of trade."<sup>1</sup>

In return for these products India received from Babylonia and Assyria rich embroidered works, fine silk fabrics, coloured glass, metal bowls, carved ivory, hides, oil, wine, linen, etc.<sup>2</sup> But these are exactly the products which are mentioned in the *Ramayana* as having been wrought and manufactured in India itself and largely in use during the epic period. However that may be, the above facts clearly show that Babylonia, Assyria and India were in close communication with each other and that the fabulous wealth and splendour of Babylon, Nineveh and Ayodhya were in no small measure due to the richness and variety of the international trade between the east and the west. But Babylon and Ayodhya could not have become the London and Paris of the west and the east all in one day; their greatness certainly presupposes a long period of preparation in trade, commerce and navigation which must have extended to the remotest times. To quote only a single instance of how King Gudea of Lagash (2450 B.C.) obtained his materials for enriching his capital—"Gudea tells us that he fetched cedar wood from Mount Amanus, the mountain of cedars, the beams measuring 50 to 60 cubits in length; from Basalla, the mountain of Amurru, he brought great blocks of stone from which he made steles and set them up in the courts of E-ninnu. From Tidanu, also in Amurru, he got marble and from Kagalad, a mountain in Kimash, he mined copper which he used for a great mace head. For *ushu*-wood, he went to the mountains of Melukbkha and gold dust he fetched from the mountain of Khakku and therewith gilded a mace-head carved with heads of three lions. He felled Khuluppu trees in Gubin, the mountain of Khuluppu wood; he drew asphalt from Magda and used it for the platform of E-ninnu; and he brought down from the mountains of Barsib blocks of '*nalua*' stone which were brought down the river in great boats to Lagash and used to strengthen the base of the temple. Altogether a remarkable picture of architectural sumptuousness and commercial enterprise and all the more remarkable, because all these costly materials

1. *The Asiatic Monarchies* by H. G. Rawlinson, Vol. II, pp. 186-90.

2. *Ibid.*, pp. 191-93.

are not, as in the case of the great works of the Assyrian monarchs, mainly the spoils of war. Gudea's materials came to him by the peaceful avenues of trade; and it seems that at this period, we must conceive of an oriental world more at peace, happier and more in the way of legitimate expansion by mutual intercourse and commerce than it ever was again in ancient days, or for the matter of that, is still."<sup>1</sup> To this, a striking parallel may be adduced from the Indian epics to show that there was no barrier between the east and the west even at that remote period and that all Asia, including India, formed a single oriental world, peaceful and prosperous by the exchange not only of commercial products, but even of intelligence and skill. At the time of the coronation of Rama and Yudhishthira, the following rare and valuable articles are said to have been received as presents from distant countries in all directions :—

"From Camboja (Cambyses) were brought cloths of wool and skins of animals that live in holes. From Vahili hills (Bactria) and Sindu sands (the banks of the Indus) and from Vanayu (a kingdom in Western Asia) came horses 'partridge-spotted' and 'parrot-nosed'. From beyond the Oxus came weapons of iron and swords with hilts of ivory. Other mountaineers brought shawls of goat's hair and silken threads spun by worms. From Tibet were sent the bushy tails of the Yawk, some white and some black. Sacred chanks, gems, corals and heaps of pearls were the offerings from Ceylon. While from the Carnatic came sandalwood and agalachehum shown by Dr. Royle to be the tree *agala*, or the eagle-wood, most used in a state of decay."<sup>2</sup>

Secondly, we have already shown that the racial movement indicates a westward march from the east. If this be so, to what country and to what race do the Sumerians belong? To this question, Prof. Hall, a comparative Assyriologist, Egyptologist and Orientalist and himself a great explorer, gives a direct and unequivocal answer :—"The ethnic type of the Sumerians so strongly marked in their statues and reliefs was as different from those which surrounded them, as was their language from those of the Semites, Aryans or others; they were decidedly Indian in type. The face type of the average Indian to-day is no doubt much the same as that of his Dravidian race ancestors thousands of years ago. Among the modern Indians, as amongst the modern Greeks or Italians, the ancient pre-Aryan type of the land has (as the primitive type of the land always does) survived, while that of the Aryan conqueror died long ago. And it is to this Dravidian ethnic type of India that the ancient Sumerian bears most resemblance, so far as

1. *The Life of the Ancient East* by Rev. James Haikie, pp. 221-22.

2. *Life in Ancient India* by Mrs. Spier, pp. 159-60.



we can judge from his monuments. He was very like a Southern Hindu of the Deccan (who still speaks a Dravidian language). And it is by no means improbable that the Sumerians were an Indian race which passed, certainly by land, perhaps also by sea, through Persia to the valley of the two rivers. It was in the Indian home, perhaps the Indus Valley, that we suppose for them that their culture developed. That their writing may have been invented and progressed from a purely pictographic to a simplified and abbreviated form, which afterwards in Babylonia took on its peculiar cuneiform appearance owing to its being written with a square-ended stylus on soft clay. On their way, they left the seeds of their culture in Elam. There is little doubt that India must have been one of the earliest centres of human civilization and it seems natural to suppose that the strange un-Semitic, un-Aryan people who came from the east to civilize the west were of Indian origin, especially when we see with our eyes how very Indian the Sumerians were in type."<sup>1</sup>

When this Sumero-Dravidian hypothesis was advanced by Hall more than a decade ago, it fell flat upon a somewhat too critical world which required greater and more reliable scientific proofs than the near shadowy resemblance of an average Dravidian of to-day to the Sumerian of the third or the fourth millennium B.C. as represented on a statuette, but the opinion is fast receiving confirmation from the large finds of the Sumero-Dravidian relics recently made in the Indus Valley. The faience bangles, hæmatite pestles, ring stones and maces, ornaments of chank and cornelian, especially chank bangles, the conch industry, the terracotta sarcophagi are all distinctly pre-Aryan and Dravidian in origin. Many of these relics are analogous to those found in Baluchistan, Wazaristan, Seistan, Elam and Susa. Dr. Coomaraswami, therefore, rightly points out that the equation 'Sumerian=Dravidian' is more plausible than the other one 'Sumerian=early Aryan' attempted by Dr. Waddell.<sup>2</sup> This view is now strongly supported by Sir John Marshall on other proofs, such as the skeletal remains now found at Mohenjo-daro. He says: "As might have been expected, all the skeletal remains found at Mohenjo-daro appertain to a dolicho-cephalic people who may reasonably be assumed to have belonged to the great long-headed race of Southern Asia and Europe to which the name of the 'Mediterranean' is commonly applied but which besides the Mediterraneans comprised also the pre-Aryan Dravidians of India as well as many other peoples. The only skull approximating to a brachy-cephalic type is from the fractional burial described above and this appears to exhibit the same racial characteristics as

1. *The History of the Near East* by Prof. Hall, 172-73.

2. *The History of the Indian and Indo-Asian Art* by Dr. Ananda K. Coomaraswami, p. 4.

the marble and alabaster statues from Mohenjo-daro which are pronouncedly brachy-cephalic. Although these skeletal remains from Mohenjo-daro are of the chalcolithic period and may be taken to be illustrative of the population of Sind during that period, they are, to judge from the level at which they were found, posterior to the abandonment of the latest city."<sup>1</sup>

Reliable scientific proofs are thus forthcoming in rapid succession in support of Hall's Sumero-Dravidian hypothesis, and to these may be added the linguistic affinities presented by the Sumerian and the Dravidian languages and among the latter, in particular, the Tamil language.

So far as the art of writing on the inscribed Indus seals is concerned, Sir John Marshall points out that "a small proportion of them resemble early Sumerian signs, but there is no evidence to show that they have the same phonetic values, or that the languages of the two countries were related."<sup>2</sup> Professor Barton of the Pennsylvania University has also written to the present writer that only some of the characters resemble Sumerian. He says:—"There are not more than fifteen or sixteen characters that really resemble Sumerian. One line of writing containing four signs only is clearly Sumerian. A number of characters resemble Hittite more than Sumerian and some of them resemble early Chinese still more. Some of those which resemble Sumerian signs as, for example, the fish, also resemble Egyptian, Chinese and Cretan pictographs. The fish was such a common symbol that it is pictured similarly in the early systems of many parts of the world. The presence of some few cuneiform signs together with the similarity of the brick work and of archæological objects to the brick work and archæological objects from Babylonia raise the presumption of some intercourse, but it is quite possible that that intercourse was with Elam and there may have been Chinese influence." Both Sir John Marshall and Barton are not, therefore, prepared to accept the identifications and decipherments made by Dr. Waddell of the so-called Indo-Sumerian seals, or to recognize any connection between the Sumerian and Dravidian languages. Whatever may be the outcome of the technical discussions about the script inscribed on the Indus seals, there is nothing to prevent us from comparing the two languages, *viz.*, the Sumerian and the Dravidian, and to see how far they are related to each other.

The Brahui which forms a connecting link between the Dravidian India and the Sumerian west, is essentially a Dravidian language. As in the case of the Indian Dravidian languages, the cases of nouns are denoted in the Brahui by post-positions; the gender is expressed, not by inflexion, but by prefixed separate words; the number is generally denoted by participles of

1. *The Press Statement* issued by Sir John Marshall.

2. *Ibid.*

pluralization, conveying the idea of many, several, etc., and adjectives are destitute of comparatives and superlatives. The Brahui pronoun for *thou* is 'ni', as in all the Dravidian languages. The reflexive pronoun for *self* is 'tan' or 'tân' in Dravidian and 'ten' in Brahui. The plural of nouns is usually formed by adding *k* which may be allied to the Tamil 'kal'. Two of the numerals are identical: two—(*Brahui*—*irat*, *Canarese*—*eredu*, *Tamil*—*irandu* or *irattu*); three—(*Brahui*—*musit*, *Canarese*—*munu*, *Telugu*—*mudu*, *Tamil*—*munru*).

Some of these Brahui forms bear very close resemblance to those in the Scythian languages. The Scythian cuneiform tablet found at Bahistun affords remarkable parallels to the Tamil language. In the language of this tablet, the datives, the genitives, the accusatives, the negative imperatives, the pronoun of the second person, the relative participles are all found to be in harmony with the Dravidian forms. If the Sumerian language is pre-Aryan, non-Semitic and agglutinative, more so are all the Dravidian languages. The Sumerian and the Dravidian languages seldom allow the roots of the words to be obscured, or lost by inflexion, but nearly always, with but small exceptions, add the determining and modifying syllables at the end and keep them as something distinct from the roots themselves. But for the exigencies of space, we would fain give a full analysis of the points of resemblance and difference between the Sumerian Grammar and the Dravidian Grammar and the principles on which both the languages have been evolved. With a view, however, to give the reader a general idea of the affinities between them, we give below a few select typical roots and words common to the Sumerian, Akkadian and Egyptian languages and the large group of Dravidian languages, such as, Tamil with its dialects Kurumba, Irula and Yerkala, Telugu with its dialects Yenadi and Chentsoo, Canarese with its dialects Badaga, Kotah and Todab, Malayalam and other isolated dialects, such as, Toolu, Coorg, and Khond.

Comparative table showing the affinities between the Sumerian, Akkadian, Egyptian and the Dravidian languages:—

Flood, river, flowing water.	<table> <tr> <td rowspan="2">}</td><td>SU.—A. A. EG.—<i>Ar.</i>, <i>Aur.</i> TAM.—<i>Aru.</i> MAL.—</td></tr> <tr> <td><i>Aru.</i> TEL.—<i>Eru.</i></td></tr> </table>	}	SU.—A. A. EG.— <i>Ar.</i> , <i>Aur.</i> TAM.— <i>Aru.</i> MAL.—	<i>Aru.</i> TEL.— <i>Eru.</i>		
}	SU.—A. A. EG.— <i>Ar.</i> , <i>Aur.</i> TAM.— <i>Aru.</i> MAL.—					
	<i>Aru.</i> TEL.— <i>Eru.</i>					
Father, leader, protector.	<table> <tr> <td rowspan="4">}</td><td>SU.—AB, AP, ABBA. AKK.—<i>Abu</i>, <i>Babu.</i> EG.—</td></tr> <tr> <td><i>Ab</i>, <i>Papa.</i> TAM.—<i>Appan</i>, <i>Tagappan.</i> MAL.—</td></tr> <tr> <td><i>Appan.</i> TEL.—<i>Abba.</i> CAN.—<i>Appa.</i> BADAGA.—</td></tr> <tr> <td><i>Appa.</i> COORG.—<i>Appu.</i> KHON.—<i>Abba.</i></td></tr> </table>	}	SU.—AB, AP, ABBA. AKK.— <i>Abu</i> , <i>Babu.</i> EG.—	<i>Ab</i> , <i>Papa.</i> TAM.— <i>Appan</i> , <i>Tagappan.</i> MAL.—	<i>Appan.</i> TEL.— <i>Abba.</i> CAN.— <i>Appa.</i> BADAGA.—	<i>Appa.</i> COORG.— <i>Appu.</i> KHON.— <i>Abba.</i>
}	SU.—AB, AP, ABBA. AKK.— <i>Abu</i> , <i>Babu.</i> EG.—					
	<i>Ab</i> , <i>Papa.</i> TAM.— <i>Appan</i> , <i>Tagappan.</i> MAL.—					
	<i>Appan.</i> TEL.— <i>Abba.</i> CAN.— <i>Appa.</i> BADAGA.—					
	<i>Appa.</i> COORG.— <i>Appu.</i> KHON.— <i>Abba.</i>					
Cattle, ox, cow.	<table> <tr> <td rowspan="2">}</td><td>SU.—AB, AP. AKK.—<i>Arhu.</i> EG.—<i>Abu.</i> TAM.—</td></tr> <tr> <td>A. TEL.—<i>Avu.</i> CAN.—<i>Avu</i>, <i>Hasuvu</i>, KOTA.— <i>Ave.</i></td></tr> </table>	}	SU.—AB, AP. AKK.— <i>Arhu.</i> EG.— <i>Abu.</i> TAM.—	A. TEL.— <i>Avu.</i> CAN.— <i>Avu</i> , <i>Hasuvu</i> , KOTA.— <i>Ave.</i>		
}	SU.—AB, AP. AKK.— <i>Arhu.</i> EG.— <i>Abu.</i> TAM.—					
	A. TEL.— <i>Avu.</i> CAN.— <i>Avu</i> , <i>Hasuvu</i> , KOTA.— <i>Ave.</i>					

Fire, flame, burn, fry.	} SU.—AG, AKK, ANG. AKK.— <i>Akku</i> , a fire pan. EG.— <i>Aka</i> , <i>Aug</i> , <i>Akku</i> . TAM.— <i>Akku</i> , to fry, to cook. CHENTSOO.— <i>Agin</i> .
Shining-silver.	} SU.—ALAR-AAAR. AKK.— <i>Ara</i> , <i>Ellu</i> . EG.— <i>Arqur</i> , <i>Har</i> . TAM.— <i>Velli</i> .
After, behind, thereon.	} SU.—ABA. AKK.— <i>Akku</i> . TAM.— <i>Aḥ-puram</i> .
Mother.	} SU.—AMA, EME. AKK.— <i>Ama</i> , <i>Amu</i> . TAM., MAL., TEL., ENADI and CAN.— <i>Amma</i> .
One.	} SU.—ANA. TAM.— <i>Ouru</i> . MAL.— <i>Oonu</i> . KURUM- BA, IRULA, YENADI and BADAGA.— <i>Vondu</i> CAN. and COORG.— <i>Ondu</i> .
Plough.	} SU.—AR, AR, ARA. EG.— <i>Ar</i> . TAM.— <i>Ār</i> .
Lord, God, protector.	} SU.—AŚ, AŚŚA. TAM.—( <i>Ar</i> ) <i>asan</i> . MAL.— <i>Asan</i> .
Sent, sit, rest.	} SU.—ASTE, ASTI. AKK.— <i>Kussu</i> . EG.— <i>Aasb</i> . TAM.— <i>Kundu</i> . TEL.— <i>Kurssundu</i> . CAN.— <i>Kutu-</i> <i>kollu</i> . KOTAH.— <i>Kusure</i> .
Path, way, open.	} SU.—BAD, BAT. EG.— <i>Path</i> . TAM.— <i>Pathai</i> .
Vessel, pot.	} SU.—BANA. AKK.— <i>Bandu</i> . EG.— <i>Ban</i> , <i>Banu</i> . TAM.— <i>Panai</i> .
Priest, seer, Brahmin.	} SU.—BAR, BARU. AKK.— <i>Baru</i> . EG.— <i>Par-a-a</i> (Pharaoh). TAM.— <i>Par-pan</i> .
River, stream.	} SU.—BUR, PUR. EG.— <i>Baur</i> , <i>Paur</i> . TAM.— <i>Vari</i> .
Bad, wicked, poison, bite.	} SU.—BUZ. AKK.— <i>Bisu</i> . TAM.— <i>Visham</i> .
Earth, land.	} SU.—DAR, TAR. TAM.— <i>Tarai</i> . YERKALA.— <i>Tarra</i> .
Seize, rob, destroy.	} SU.—DAG, TAK. AKK.— <i>Tabahu</i> . EG.— <i>Takku</i> . TAM.— <i>Takku</i> (attack).
Dress, clothe, weave.	} SU.—DARA, DIRI. EG.— <i>Thar</i> (to enclose, to protect). TAM.— <i>Thari</i> .
Tablet, writing document, evidence, clue.	} SU.—DUB, TUB. AKK.— <i>Tuppu</i> . TAM.— <i>Tuppu</i> .
Exist, go out.	} SU.—EI, EKHI. TAM.— <i>Ēkhu</i> .

Village, town, city.	} SU.—ER, ERI, URU. AKK.— <i>Alu</i> . TAM., KU-RUMBA, TEL., YENADI, CAN., TODA, TOOLU, COORG.— <i>Ur</i> or <i>Uru</i> .
Fire, burn.	} SU.—FIR, PIR. AKK.— <i>Nuru</i> . TAM., YERKALA, YENADI.— <i>Neruppu</i> or <i>Nerpu</i> . TEL.— <i>Nippu</i> .
Fish.	} SU.—FISH, PISH. AKK.— <i>Mam-lu</i> . TAM.— <i>Min</i> .
Hostile, enemy, battle, war.	} SU.—BAR. AKK.— <i>Akku</i> . EG.— <i>Para</i> , <i>Pari</i> . TAM.— <i>Pór</i> .

If the Sumerians had been pre-Aryan and non-Semitic, when and how then did the Aryan element arise? In order to trace the origin of the Aryans, we are obliged to explore the history of the land of *Kheta-Sira* in the extreme western corner of the ancient *Bharatavarsha*, or to be more explicit, the land of the *Khatti*, or the Hittites in Asia Minor. Here we find the earliest Aryan settlements, so far as known, of peoples, called the Hittites, the Kassites, the Mitannians, dating their origin from about 3000 B.C. but rising as political entities only from about 2000 B.C. Of these, the Kassites make their appearance for the first time in the province west of Elam and east of the Tigris and begin to give trouble to Babylonia immediately after the death of king Hammurabi and in the reign of his son Shamsu-iluna (2080 to 2043 B.C.). They finally gained ascendancy over the Babylonians and established their monarchy as the third dynasty of kings who ruled over Babylonia from 1760 to 1185 B.C. The Babylonian archives show that the Hittites of Asia Minor were also chiefly responsible for the overthrow of the first dynasty of Babylonian kings in about 1800 B.C. Even earlier references to Hittite kings are found in the Babylonian and Egyptian records which take them on to the beginning of the second millennium B.C. Their political history, however, begins only from 1450 B.C., when they regularly established their monarchy at Bhoghazkeui in the Province of Hatti. The Mitannians who were akin to the Hittites, also rose into prominence just about the same period. Their power was firmly established in Northern Mesopotamia between the Euphrates and the Tigris under king Tushratta who represented the fourth generation of his illustrious house. With considerable foresight he strengthened his authority by intermarriage with the Royal Family of Thebes in Egypt in order to save his kingdom from being crushed by the Assyrians on one side and the Hittites on the other.

Various conjectures have been made as to the origin of the Hittite race. Some hold the view that they were the European race belonging to the Alpine regions who migrated to Asia Minor by crossing the Hellespont, others regard them as indigenous to Asia Minor, while yet a few take them on to the Caucasus mountains, or Scythia. But the belief has been gaining in strength

that they were essentially an Asiatic race who migrated to Asia Minor from some unknown centre in the east. Professor Anderson observes: "The Hittites appeal to us on account of the debt which the European civilization owes to them, since the first beginnings of Greek culture were derived from the Hittite conquerors of Asia Minor. Obtaining their civilization from an eastern source, as Bactria, or some other unknown centre, they transmitted it westwards to the distant shores of the Ægean. Thence the early Greeks conveyed it to the European continent."<sup>1</sup> The first attempt to indicate this eastern source was made by Sir Charles Wilson, one of the great explorers of Asia Minor who found that they were a northern people bearing a Scythian character. He says: "The sculptures show that the Hittites did not belong to a Semitic race. The features are those of a northern people and on the temple of Ibsambaul the Hittites have a very Scythic character with shaven head and a single lock from the crown. This peculiarity in the mode of dressing the hair is not seen on the Hittite monuments, but, at Karnak and Thebes I notice figures with the same type of features as those on the monuments in Anatolia."<sup>2</sup> Yet another theory has been advanced by Garstang who while accepting the eastern source of the Hittites, is inclined to trace them to a mountain origin, on account of their peculiar use of sandals and shoes with turned-up toes. In regard to this shoe, he observes: "It is commonly supposed to be the natural form of a snow-shoe for highland regions, though the shepherds of the Pyrenees, who also use it, believe it to be specially adapted to walking upon broken and stony ground. However that may be, most scholars are agreed that it argues a mountain origin for its Hittite wearers and this suggestion is borne out by the mountain cults found in the Hittite pantheon."<sup>3</sup> But in tracing this origin, he does not go far to seek for the mountains, but pitches upon the nearest ones in Armenia, the Caucasus and the Taurus. Strangely enough beyond the imaginary connection between an upturned shoe and a mountain, there is, so far as we can gather, absolutely no vestige of any primitive cult, culture, or race to connect the Hittites with those regions, or to account for the sudden rise of a peculiarly characteristic civilization in a strange and distant land, hemmed in on all sides by more powerful races who had already developed a high degree of material civilization far in advance of them by two or three millenniums. If, as observed by Sir Charles Wilson, they show a mountain origin and possess a mountain cult, we should go far eastward to trace them. The most primitive mountain cult prevalent in the east was the 'Himalayan cult' which produced the earliest known pantheon of Indra, Vayu, Varuna, Agni and Nasatya twins, which

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1. *The Extinct Civilization of the East* by R. E. Anderson, p. 85.
  2. *The Journal of the Palestine Exploration Fund*, January 1894.
  3. *The Land of the Hittites* by Garstang, p. 321.

was adopted under different forms and names by all the other ancient nations, the Sumerians, the Semites, the Hittites, the Mitannians and the Egyptians and from them the Greeks and the Romans. This is borne out by the fact that the Mitannian people, according to Dr. King, "were dominated by a dynasty of Indo-European extraction bearing Aryan names and worshipping the Aryan Gods, Mitra, Varuna, Indra and Nasatya twins."<sup>1</sup>

The earliest Hittite pantheon also consists of the Attys, the Attargates, Astarte, Amon, Pra, Sutekh, etc., corresponding to the gods of the Hindu pantheon. There seems, therefore, to be no doubt that a predominantly intellectual and gifted race descended from the snow-clad hill tops of the Himalayas, of which one section spread over northern and eastern Asia and the other swept down towards the south and the west, both springing from the same original stock and carrying with them the best features of their common civilization. The former went by the name of the Mongols and the latter by that of the Hittite Aryans. The sculptures on the Hittite monuments also show that the Hittites were closely akin to, or were the intimate allies of, the Mongols.

The first low country which received the southern section of this Himalayan race was apparently the Indus Valley; for according to Professor Barton, most of the characters in the inscribed seals now found at Mohenjodaro resemble the Hittite pictographic writing with a little touch of Chinese influence. He further adds, "My own impression is that these so-called seals were records of sacrifices, in each of which a bullock figured and in which also fishes as well as jars of food and drink figured as offerings." We thus see the earliest beginnings of the Hittite Aryan civilization also located in the Indus Valley, side by side with the Sumero-Dravidian civilization, though it is as yet impossible to say how far the two were related to each other in the same area. But this much seems to be certain that the Hittite Aryans first settled down in the Indus Valley and spread out Aryan settlements in Bactria, Media, Scythia, Iran and Asia Minor. Having reached Western Asia, they soon came into contact with the Sumerians and the Semites who had already migrated to that region in advance, both by sea as well as by land, through Baluchistan and again turned back to India through Iran and Afghanistan with the raw products of their mountain cult converted into finished products in the Sumero-Semitic-Hittite mills of Western Asia.

In all ages and in all countries, the Aryans always kept themselves aloof from, and above, those with whom they came into contact, or whom they subjugated. This sense of race superiority was ingrained in the minds of the Hittites, the Kassites, the Mitannians and the Semites, and wherever

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1. *The History of Babylon* by L. W. King, p. 227.



they settled, they always constituted themselves as a racial aristocracy. As regards the Kassites and the Mitannians, Dr. King observes: "The probability has long been recognized that the Kassites were Aryan by race and we may, with some confidence, regard them as akin to the later rulers of Mitanni who imposed themselves upon the earlier non-Iranian population of Subartu of Northern Mesopotamia. Like the Mitannian kings, the Kassites of Babylon were a ruling caste, or aristocracy, and though they doubtless brought with them numbers of humbler followers, their domination did not affect the linguistic, or the racial, character of the country in any marked degree. Though they gradually adopted the civilization of Babylon, they tended for long to keep themselves aloof, retaining their native names along with their separate nationality. They were essentially a practical people and produced successful administrators."<sup>1</sup> How true these marks are of the Indo-Aryans who similarly established their distinctive civilization over the Dravidians as a separate and superior race, well tried in the art of governance! The Hittites also kept their race and language unpolluted by foreigners for a long time. While they carried on their internal affairs in their own native language, they adopted the Assyro-Babylonian language in cuneiform for all correspondence of a diplomatic nature with foreign states, such as Egypt, Syria, Babylonia and Assyria. Their early writing was no doubt pictographic, but it differed materially from the Sumerian pictographs. Their language is also pre-eminently proto-Greek and, therefore, proto-Sanskrit. In the *Quarterly Bulletin of the Ottawa University* for October 1925, Prof. R. J. Kellogg has made an attempt to compare the Hittite language with all the Indo-European languages, particularly Greek and Sanskrit, strictly on the basis of philological laws and has formulated the following conclusions:—

(1) The Hittite is fundamentally and dominantly Indo-European not only in grammatical structure but also in vocabulary.

(2) In phonology, vocabulary and grammatical forms it agrees most closely with proto-Greek, but with a sufficient body of differences in each of these three lines.

(3) It is therefore to be assigned positively to the Hellenic branch of the Indo-European languages being clearly a sister dialect of proto-Greek.

(4) The alien elements of the Hittite vocabulary are certainly less than has hitherto been supposed, but their exact proportion still remains to be determined by further decipherments and etymological siftings.

(5) As to structure, besides the considerable proportion of near proto-Greek and near Indo-European grammatical forms, other forms show

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1. *The History of Babylon* by L. W. King, p. 214.

syncretism, substitution, contaminative reformation, though not more than in Sanskrit and Greek.

On these and other grounds he is inclined to think that the Hittite language with its closely related languages, such as Lydian and Lycian and the Greek dialects, constitute a Helleno-Asiatic group, lying between the Thracio-Phrygian and the Indo-Iranian languages of the Indo-European group. Professor Hrozný, a Bohemian scholar, thinks that the Hittite language belongs to the western half, and the Mitanni to the eastern half, of the Indo-European family. Prof. Barton also agrees with this view and adds: "The declension of the noun, the general scheme of the conjugation of the verb, the substantive verb 'to be' are all Indo-European. The pronouns are practically identical with those of Latin and some of the older Greek dialects. Many of the roots of individual words are identical with those in Greek and Latin, while others are identical with those in the Teutonic languages. All this had been learned by the study of the Hittite documents written in cuneiform character which Winckler deciphered at Boghaz-keni. All that remains for a complete understanding is to work out more and more completely the meaning of words and the finer shades of grammatical construction."<sup>1</sup>

The study of the Hittite language in relation to Sanskrit has not, however, received that close attention which it deserves. It seems that these languages are more allied to each other than has hitherto been supposed and that their affinities arise, not merely out of the mutual exchanges of forms and words made by each other, but out of close historical connection between the races speaking the languages themselves. The names of some of the Hittite and Mitannian gods, kings, kingdoms, cities and mountains bear such striking resemblance to those mentioned in the Vedas and Epics that they suggest something far more than mere contaminative influence—perhaps a real identity of race and culture. Speaking of the Mitannian gods, Dr. B. B. Charles observes: "Perhaps the most remarkable element in this complex of divinities connected with the Hittite is represented by four names of Mitannian gods found on one of the Boghaz-keni tablets—

Mi - it - ra-as - si - il

U - ru-w - na - as - si - il.

In - da - ra

Na-sa - at - ti - ia - an - na.

That is, Mitra, Varuna, Indra and perhaps Nasatya twins. An attempt to discuss this interesting admixture would be premature, but it clearly shows some very close connection between the Hittite culture and that of the

1. *Archæology and the Bible* by G. A. Barton, p. 80.

Aryans in India, possibly the addition to the western people of a fresh stratum of population representing a migration during the second millennium."<sup>1</sup>

The following list of a few select Hittite names may throw some light on the question, however dim and bewildering it may be for the present<sup>2</sup> :—

*Arinna*.—Goddess of Spring—*Cf.* Sanskrit Aruna.

*Arnuanta*.—A Hittite king 1200 B.C.—*Cf.* Epic king Ananta.

*Artatama I and II*.—Mitannian kings 1400 and 1350 B.C.—*Cf.* Epic king Vatadhana.

*Aruna*.—A town near the frontier of Kizzuvadana—*Cf.* Epic kings Varuna, Varuni, Aruna and Aruni.

*Assur*.—As-sur-as—Asuras or Assyrians.

*Barduvatas*.—*Cf.* Bhardwajas.

*Dudkalia*.—A Hittite king 1250 B.C.—*Cf.* Epic kings Dushkarma and Dushmantha.

*Durmitta*.—Its people rebelled against Subbi—*Liliuma*—(*cf.* Epic king Sibi) who restored the sovereignty of Ishuva—(*cf.* Epic king Ikshvaku).  
*Cf.* also Dhurmuka and Dhimata.

*Harahaswas*.—*Cf.* the Vedic chief Harayaswas.

*Harri*.—A powerful state—the hereditary rival of Hatti.

*Hubisna*.—*Cf.* Vibhishna.

*Iati*.—*Cf.* Yayâthi.

*Iruvattas*.—A fortress in the district of Barga—*Cf.* Irawata.

*Karahna*.—A town.

*Karna*.—A mountain—*Cf.* Epic king Karna.

*Kasipa*.—A town—*Cf.* the Vedic priest Kasipa.

*Matuza*.—A Mitannian king 1300 B.C.—*Cf.* Epic kings Matinara and Matimana.

*Miššuwanzas*.—A fortified town, one of the series of hill fortresses. The name is a variant of Mazuwati, near the Euphrates. This is apparently the mountainous region, Muzavat, from which the Vedic Aryans are said to have brought the Soma plant.

*Paraša*.—A very early name occurring in sequence between Amurri and Armani.

*Purattu*.—The Semitic rendering of the idiogram representing the Euphrates.

*Subbi-liliuma*.—*Cf.* the Epic king Sibi.

*Sutarma I and II*.—Mitannian kings 1400 and 1300 B.C.—*Cf.* Epic king Suparna.

*Tushratta*.—A Mitannian king 1350 B.C.—*Cf.* Epic king Dasaratha.

Though some of the Hittite names of places appear to correspond to the Aryan names of persons, yet all the names are distinctly Aryan in origin and Sanskrit in form and unmistakably indicate a close family connection between the two nations. Until the numerous missing links are supplied by further decipherment of the Hittite monuments and inscriptions, it is premature to speculate upon the mere resemblances of names, but at all events, here is a wide field for future research into the dark corners of the ancient history of the Indo-Aryans in and outside India.

We have already shown how the Sumerians migrated from the Indus region to the valley of the Euphrates and the Tigris and there established a highly developed civilization of their own. The Semites whom we come across for the first time in the fourth millennium B.C., appear to have been in occupation of the Sumerian land long before the Sumerians themselves occupied it and to have proceeded westwards, leaving traces of their occupation in the Euphrates Valley. The uncongenial desert life of Arabia and the obstacles for further advance presented by the Mediterranean Sea soon compelled them to find outlets for their energies elsewhere. They rapidly spread over Egypt, Palestine and Syria and imposed their civilization upon those countries. When they reached Asia Minor, they came across another enterprising race, called the Hittites, who had by that time established in that region a civilization of a separate and distinctive type which was neither Sumerian nor Semitic. Their language, religion and racial features differed entirely from those around them. The Semites soon enveloped them within their influence, but without molesting them in any way, advanced towards the Euphrates Valley, where they subjugated the Sumerians and absorbed them in their fold.

There were thus originally three great parallel streams of culture and civilization prevalent in Western Asia from the fourth to the second millennium B.C., viz., the Sumero-Dravidian, the Semitic and the Hittite-Aryan. Of these, the first so far as known, was the oldest, the longest and so the weakest; the second proved more mighty and devastating and completely submerged the first, but in doing so, it got itself thoroughly Sumerianized; the third also came very near being swept away by the second, but narrowly escaped destruction, by keeping up a tributary connection with it by confluence and contact up to a certain distance and then emerging out of it as the new parent of the Indo-Iranian and the Indo-Aryan branches. We have thus now a combined delta system of culture and civilization abundant in its germs, luxuriant in its growth, extensive in its influence and rich in its parallels and it is from this cultural blend that we propose to draw parallels for establishing the identities and affinities between the Sumero-Indus civilizations.

**Fig. 1****The Sumerian Type**

From a male statuette from Tello.

(After King).

Note the shaved head and face, round head, fleshy nose and thick lips.

**Fig. 2****The Dravidian Type**

The average Nattukottai Chetti of the present day. Note his facial resemblance to the Sumerian.

**Fig. 3****Semitic Babylonian Type**

Assyrian Nimrud

(After Lagard).

**Fig. 4****The Surviving Hittite Type**

(After Garstang)

Looks like a Rajput Chief.

**Fig. 5****The Indo-Aryan Type**

(From Moor's Hindu Pantheon)  
The type of a Kshatriya King.

**Fig. 6****A Hindu Devotee**

(From Moor's Hindu Pantheon)  
Note the single lock of hair like the Hittites.

## STUDIES IN BIRD-MYTHS, No. XXVI—FURTHER NOTES ON THE BIHARI MYTH ABOUT THE INDIAN HOUSE-CROW.

BY PROF. SARAT CHANDRA MITRA, M.A., B.L.

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IN my paper entitled "Studies in Bird-Myths, No. XI—On an Ætiological Myth about the Indian House-Crow" which has been published in the *Quarterly Journal of the Mythic Society* of Bangalore for October 1926 (Vol. XVII, No. 2), I have stated that there is considerable animosity between the Indian house-crow (*Corvus Splendens*) and the domestic cat, and that the primitive myth-maker of Bihar has accounted for this enmity by inventing a myth to the effect that the Indian house-crows were once pālki-bearers, that the cat was a Rāni who had hired the formers' pālki but had not paid the hire to the former and that it is for this reason that the former dun the latter for the payment of the overdue hire by pulling at the latter's tail.

But recent inquiries have shown that this animosity also exists between the Indian house-crow and the domestic dog. It has been stated that, when a dog is feeding upon a bone, a pair of house-crows will attack him in the following way:—One crow will pull at the dog's tail. While the latter will turn round to snap at the assailing bird, the other crow who goes to the front, will fly off with the bone. On this point, the well-known ornithologist, Mr. Frank Finn, B.A., F.Z.S., M.B.O.V., says:—"While with a dog they will go so far, I am told, as to tell off one of the fraternity to pull his tail when he is engaged with a bone, so that when the aggrieved canine turns round to snap, the bird in front can make off with his dinner. And this I can readily believe, as I have seen exactly the same trick played or attempted on a kite more than once; the crows, in the last cases I have observed, seem undoubtedly to be pairs, which accounts for their working together so well. No doubt the female does the tail-pulling, while the male takes the post of danger in front; in one instance I made sure of this from the forbearing behaviour of the crow which had snatched the bone of contention which he was able to do before any tail-pulling had taken place."\*

I am not aware whether there is any ætiological myth, similar to the one current among the Biharis, which accounts for this animosity between the Indian house-crow on the one hand and the dog and the kite on the other.

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\* *Vide* "The Birds of Calcutta" by Frank Finn, B.A., F.Z.S., M.B.O.V. Third Edition. Calcutta. Thacker Spink & Co. 1917. Pp. 2—6.

Should any gentleman be aware of it, he would greatly oblige the writer of this paper by communicating it to the pages of the *Quarterly Journal of the Mythic Society* of Bangalore.

But I must state here, that the afore-mentioned careful ornithologist has summed up his observations by saying that the Indian house-crow pulls or pecks at the tail of the dog and the kite or swoops down on the latter's back simply out of light-heartedness or a sense of mischief-making.



## STUDIES IN PLANT-MYTHS, No. IV—ON A BIRHOR ÆTIOLOGICAL MYTH ABOUT THE TENACIOUS VITALITY OF THE JUJUBE TREE.

BY PROF. SARAT CHANDRA MITRA, M.A., B.L.

THE Jujube Tree (*Zizyphus Jujuba*, Lam.) belongs to the Order *Rhamnaceæ*. Its vernacular name is *Ber* or *Bair* in Hindi, and *Kul* in Bengali. It is a small moderate-sized deciduous (almost evergreen) tree with a short bole and possesses a spreading rounded crown of leaves and drooping branches armed with stipular prickles. The tree is a useful one, inasmuch as it furnishes fuel and small timber in the dry regions, as well as thorns for making into fences in the agricultural districts; and its branches are lopped for cattle-fodder. Its leaves furnish a food for *tasar* silk-worm. It is cultivated throughout India for its fruits which are drupes usually fleshy; and the wild fruits are also edible. In some parts of this country the lac-insect thrives on this tree. Its wood is used for saddle-trees, agricultural implements and many other purposes, and gives good fuel and charcoal. This tree is found throughout the greater part of India, either in a wild or in a naturalised state, and ascends to an altitude of 5000 feet in the Himalayas and grows on waste lands in valleys in the Kumaon Hills. It grows well in comparatively dry regions where it is often gregarious either in the form of trees or in that of bushes in green lands. These groups of jujube-trees are always accompanied by catechu-trees (*Acacia catechu*). The fruits of the cultivated variety of the jujube-tree are cooked into acid-curries and made into pickles with salt, molasses and spices in Lower Bengal.\*

The Bīrhors are a numerically small tribe of aborigines who live in the hilly and forest regions of Chota Nagpur. They are descended from a Dravidian stock, and speak a dialect of the Mundari language. They lead a nomadic life and have no settled habitations. Their religion is a curious admixture of Animism and Hinduism. By being amidst a Hindu population, they have absorbed into the system of their tribal beliefs and traditions many Hindu mythological ideas. As for instance, they have assimilated into the body of their own tribal traditions the whole series of legends embodied in the Hindu Rāmāyana, and by giving the same a local colouring, have made these legends their own. This is known to scholars as the Bīrhor version of the Rāmāyana.

\* For the Sylvicultural uses of the jujube-tree, *vide* "The Sylviculture of Indian Trees", by R. S. Troop, M.A., I.F.S. In three volumes, Oxford. Printed at the Clarendon Press, 1921, Vol. I, page 211.

It is stated, in the course of the Birhor version of the legend about Rāvana's abduction of Sītā, that when the bear, by means of a divine afflatus, informed Rāma and Lakshmana that Sītā had been carried off by the demon-king Rāvana, they at once started in pursuit of the abductor. After they had gone some distance, they came across a plum or jujube-tree (*Zizyphus Jujuba*), and enquired of it if it had seen Sītā being carried off by Rāvana.

The tree replied: "Yes, sirs, I have seen her and, catching hold of her garment, tried my level best to prevent her from being carried off. Only a scrap of her garment got torn and is still clinging to my thorns. But, notwithstanding my efforts which proved abortive, she was carried off by the demon."

Hearing this, Rāma was extremely pleased and blessed the plum or jujube-tree by pronouncing the following benediction upon it: "O tree! I am extremely grateful to you for what you have done. *For this good act, you will never die. Though men will hack and hew you to your very roots, you will come to life again, if even only a single root of yours remains uninjured and intact.*"

For this reason, the plum or jujube-tree is extremely tenacious of its vitality.\*

From what has been stated above about the peculiar habits of the jujube-tree, it would appear that it grows plentifully in the hill-tracts and forest regions of Chota Nagpur where the Bihors dwell. As these jungle-folks are very keen-witted observers of the peculiarities of beasts, birds and plants they must have been struck by the tenacious vitality of the jujube-tree. So the most quick-witted amongst them began to reason to themselves in the following strain: "All trees and plants die as soon as they are hacked and hewn to their very roots. But how does it happen that this jujube-tree does not die, even if it is cut down to its very roots." Being ignorant of science, they were unable to hit upon the right cause. Accordingly, they fabricated the foregoing myth with a two-fold object in view, namely, *firstly*, to account for the origin of the tenacious vitality of the jujube-tree and, *secondly*, to inculcate the moral lesson that men should be grateful for all acts of benevolence done to themselves by others howsoever insignificant the latter may be. In the present case, Rāma showed the great nobility of his mind by appreciating the good act done by the jujube-tree and, as a reward for the same, by blessing it with tenacious vitality. Curiously enough, another Dravidian people—the Santals, who dwell in Western Bengal, Northern Orissa, the district of Bhagalpur in South Bihar and the Santal Parganas,—narrate an

\* *The Bihors*, by Rai Bahadur Sarat Chandra Rai, M.A., B.L., Ranchi, 1925, Pages 415—16.

ætiological myth about the plum or *Zizyphus* tree which is similar to the foregoing Bīrhor one. It is to the following effect :—

The youngest of seven Santali brothers married a Bongā girl who bore him a son. A Jogi carried off the Bongā girl who eloped with him, leaving her baby-boy in her husband's house. When the boy grew up to be a young man, he learnt that the Jogi had carried off his mother; and so he went in search of them. In the course of his pursuit, he came to a thorny plum-tree (or jujube-tree) with a large number of rags fluttering on it. Seeing this, he enquired: "Ho! ho! plum-bush! Have you seen the Jhades Jogi on this road?"

The plum-tree replied: "The Jhades Jogi brought your mother this way and I did my best to stop them. If you do not believe me, look at these rags as a proof of the truth of what I am saying."

*Finding what the tree said to be true, he blessed the tree by putting his hand on it, and wended his way.\**

[It is to be regretted that the exact words of the blessing have not been given by the learned translator Mr. C. H. Bompas.]

Thus I find that two of the Dravidian tribes living respectively in Chota Nagpur and the Santal Parganas have carefully observed the peculiar attributes of the plum or jujube-tree and have fabricated myths or fanciful stories to account for the origin thereof.

It will not be out of place to state here that the plum or jujube-tree appears to be a sacred plant and that it plays an important part in the folk-rites performed by unmarried girls in Eastern Bengal. For instance, a godling named Ito-Kumāra or Ishto-Kumāra, who is believed to preside over matrimony, is worshipped by unmarried girls in the district of Pātna in Eastern Bengal and in some parts of the district of Nadiyā in Central Bengal. The maidens worship him for obtaining the boon that they may get married soon. This worship is strictly prohibited to married girls. *This godling is believed to be immanent in the jujube-tree (Zizyphus jujuba). For this reason, no anthropomorphic image is made of this godling who is symbolized by a branch of this tree. This branch of the jujube-tree is worshipped by unmarried girls with offerings of wild flowers and to the accompaniment of the recital of mantras or charm-formulae of which the main constituent elements are—(a) entreaty, and (b) the description of the imaginary occurrence of certain events in the godling's own life, which description is believed to result in the speedy happening of similar events in the*

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\* *Vide* the folktale entitled: "The Seven Brothers and the Bongā Girl" in *Folklore of the Santal Parganas*. By C. H. Bompas, London. David Nutt, 1909, pages 218–226.

worshippers' lives. This "cult of the Jujube-tree" is a striking illustration of the doctrine of animism.\*

Then again, in some other parts of Eastern Bengal, the unmarried girls worship, during the month of Pausha (December—January), a goddessling named Tush Tuskati who is symbolized by 144 pellets made of cow-dung mixed with husks of newly-harvested paddy. After the worship is finished the worshippers burn these pellets with fuel made of the wood of the plum or jujube-tree (*Zizyphus jujuba*). This goddessling is also worshipped by the maidens for the purpose of obtaining the boon that they may get married to handsome and suitable husbands and that they may enjoy life-long conjugal happiness with the latter.†

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\* For a fuller account of this cult, see my paper entitled: "On the Cult of the Jujube-Tree" published in *Man in India* (published from Ranchi), Vol. V (for 1925), pages 115—131.

† *Vide* the Bengali book entitled: *Than Didir a Thale* or "The Grandmother's Wallet," Dakshināranjana Mitra Majumdar, pp. 129—143.

## NOTES.

### Tamil and Sanskrit.

A SCHOOL of writers amongst a section of Tamilians has of late sprung up with a theory of its own about the original development of Tamil, independently of other languages, especially Sanskrit. The aim of this school, if we have understood it aright, seems to be to establish that Tamil language and literature had neither at their early nor mediæval stages of development been permanently influenced by Sanskrit at all. To this extent, the scholars of this school have been adopting ingenious methods of research by which they try to give curious etymological accounts of words suspected of Sanskrit origin or influence, frequently occurring in their literature of these periods. They are shy to own any such influence, believing perhaps that it would lower the prestige of Tamil in the eyes of its votaries. Their methods of analysis defy all established philological codes built up by the labours of eminent orientalists of undisputed authority. To cite an instance, while editing the earliest of the extant Tamil grammars, *Tol-Kaṇṇam*, a learned writer could not reconcile his conscience to the Sanskritic '*Kavyam*' adopted in the title, and had therefore to exert himself to show that the title of the work was solely of Tamil origin. To this end, he had the ingenuity to split the title into '*Tol-Kaṇṇu-iyam*' = the first work that guards (the language)! We do not fail to appreciate the ingenuity here; but we cannot take it seriously as a literary piece of any worth. In this connection, we are reminded of the days of the Bengal-partition agitation when a Tamil Pandit of a college, speaking on the unsettlement of the 'settled fact', attempted a humorous derivation of the English word 'Industry'. He read into it 'Hindus-try' dropping the initial aspirate, and explained that the 'Swadesi' of those days was a god-send for the Indians to try! The audience whom he was addressing from the college platform enjoyed the humour and dismissed it from their minds the next moment, as nothing of consequence. But this '*Tol-Kaṇṇu-iyam*' cannot be so easily dismissed, since it carries on it an apparent stamp of scholarship. There is the danger of its being taken seriously by at least a section of not well-informed Tamil research students. But even this etymologist of '*Tol-Kaṇṇu-iyam*' could not easily shake off the dozen or so of the Sanskrit words woven into the body of this work on Tamil grammar.

Again, another scholar of repute has come forward claiming to prove that the Aryan Agastya had no hand in the Tamil language and grammar, and that the Agastya of their language was but a Dravidian, having had no sort of relation, near or remote, with his prototype of the Aryan branch. But scholars of the type of Gangoly and Nag, who have made the study of Greater India their own, have established beyond doubt that the Aryan Agastya carried Aryan enlightenment, not only across the Vindhyas into the south, but even beyond the seas, into the islands of the Asiatic Archipelago.

Now, what is this mentality that is at the back of this Neo-Tamil Research school it is difficult to say. By a species of hair-splitting there has arisen a desire to establish an origin and development of the language and literature of Tamil, the parent stock of the Dravidian group, independent of Sanskrit, the language of the Aryan.

Whatever might have been the independent prehistoric origin of Tamil, it could not but be influenced at its historic stages by a powerful contact with Sanskrit. It is a natural law of languages that, when they come in contact with each other, they do not keep themselves shut up within bounds of separate pigeon-holes as it were, but openly influence each other. This influence is balanced when the members of contact are of equal virility; but one-sided, when one of them is more virile. Thus words and ideas are frequently lent or borrowed, reformed and admitted into each other's folds. They are so inextricably lodged in the quarters of their new homes that an ejection is beyond all possibility. But they betray their origin at the skilful touch of the philologist.

Such a contact between Tamil and Sanskrit is believed to have taken place both by water route along the Arabian Sea, and by land route across the Vindhya, the former being far the earlier. As a result of this, Sanskrit is proud to carry in it words like 'Neera', 'Meena', 'Mayura' etc. And Tamil too has several witnesses of this contact. In later stages, the Tamilians even adopted many phases of the more powerful Aryan culture and civilization, while lending it a few of theirs. Therefore it is too late in the day for the Neo-Tamil researchers to disprove the origin of Sanskrit words and ideas imbedded deep in the Tamil language and literature. And yet our friends are going on in their task shutting their eyes to the facts of philology and history, established as a result of researches carried on for several decades.

Recently the literary world has been treated to a feast of "Ravana the Great". The author had not much difficulty in achieving his object. No historical perspective or researches were needed. He had plenty of imagination, and for him one half of the work was already accomplished by Valmiki. That hoary sage developed one side, the reverse, let us say; and the other, the obverse, could be easily built up. Wherever Valmiki lavished praises, the author could lavish his invectives; and whatever Valmiki condemned, he could uphold—a simple process of reversing the direction from positive to negative, or from negative to positive, one of them being given. This was what the author accomplished within the compass of a few pages.

We are afraid such writings cannot be taken seriously, at any rate, as seriously as the authors would like us to do. Their researches, if so they may be termed, smack of intellectual dishonesty, not to say ingratitude, born of an unwholesome phobia. The more honest way of achieving their end would be to reissue expurgated editions of all classics removing therefrom every vestige of influence of Sanskrit language and literature, and build up anew a language and literature of Tamil free from such taints. As a member of this school of scholars has

recently said presiding over a social conference that their methods of reform recognized destruction as the first and inevitable step of advance, they may as well apply this method to their language and literature too. That would be more honest and straightforward.

Other branches of Dravidian stock, like Telugu, Canarese and Malayalam, have not so far developed an antipathy to Sanskrit. They are, on the other hand, proud to call themselves children of Sanskrit, of course adopted ones. They have so identified themselves with their adopted parent that one may reasonably doubt whether they may after all have sprung up from the loins of this parent, or whether this parent and these adopted children are after all distant cousins springing out of one common grandparent. Anyhow, their grammar, their prosody, their literature have all been built up on the model and materials of Sanskrit, so much so they have now left with themselves very few traces of their earlier independence. What a contrast!

We do not apprehend, however, that Tamil will one day rise up as from a dream and disclaim her kinship with her more modest sisters to her immediate North and North-West.

K. KRISHNAMACHARYA.



## REVIEWS.

### Report of the Mysore Archæological Department for 1927.

THE last of the series of annual reports to be published by Dr. R. Shama Sastri, B.A., Ph.D., M.R.A.S., under the auspices of the Mysore University is of the same absorbing interest as its predecessors. Dr. Shama Sastri having retired has been succeeded by Dr. M. H. Krishna Iyengar, as Director of Archæological Researches in Mysore. Dr. Shama Sastri, as a valued contributor of ours also, has been familiar to the public and we hope in his retirement he will be able to continue his researches and put them together before an eager audience.

We also extend a hearty welcome to the new Director Dr. Krishna Iyengar. He has already signalised the new year by important and far-reaching discoveries at Chandravalli, near Chitaldrug. With his experiences of excavation work, etc., in foreign countries, we look forward to an interesting period of work in his régime.

We congratulate the Department on an improved get-up of the Report under review. Much, however, still remains to be done. We would suggest, for the earnest consideration of the Government, that the archæological report, unlike other annual reports, is a permanent record, circulating all over the world and deserves a better binding and get-up. Similar Reports of the Government of India and of the Hyderabad State may be noticed to give a more accurate idea of what we mean.

It is a matter for great gratification to read that Revenue officers have begun to take an interest in and to inspect monuments of archæological interest in the State.

The village of Aimangala, north of Hiriyr, is said to contain ruins full of interest and it is hoped the current year will give an account of work done. Estimates were prepared for preservation of about thirteen monuments during the year costing about Rs. 26,000 apart from an estimate of Rs. 1,389 sanctioned for the repairs of the Sadasiva temple at Nuggihalli. The Government have also passed orders to clean up and restore to a state of preservation Hyder's birth-place at Budikote in the Kolar District. Public support must supplement Government efforts, if we are to succeed, in any great degree, in the work of restoration of archæological monuments.

Dr. Shama Sastri examined a large number of manuscripts during the year, including Vimalabodhacharya's manuscript commentary on enigmatic verses contained in the *Mahabharata*. He considers the commentary helpful in determining the date of the Mahabharata war, and a reliable work based on traditional lore. A portion of the commentary relating to the date of the work, a tentative translation of it in English and a scheme of the calendar of the time are given. It is difficult to follow Dr. Shama Sastri in the calculations which he makes; but if his translation points to anything at all, it suggests, as he says, that the date of

the Mahabharata cannot be later than 400 B.C. but may be as old as the tenth century B.C.

It is pleasing to hear *Panchatantra* being after all recognised as a work designed to teach political wisdom. Dr. Hertel dates it about 200 B.C. and Dr. Shama Sastri thinks that the stories of the Panchatantra are based on the political principles of the Arthasastra to which he assigns the epoch 350 to 300 B.C. The Panchatantra makes use of the technical terms and political ideas familiar to the reader of the Arthasastra. Chanikya is also referred to by name in the verse which is found in several versions of the Panchatantra, though not in the Brihalkatha or the Pahlavi version.

By an examination of other printed works, Dr. Shama Sastri has been able to deduce the following new facts :—(1) The form of secret writing referred to in the Arthasastra ; (2) The date of the Arthasastra ; (3) The age of Kannada, Bhamaha, Vachaspathi Misra and Mallinatha Suri ; and (4) The initial years of the Gupta era in A.D. 200-201 with reference to the Bhattaka patra grant of Dharasena II of Vallabhi.

As regards the Gupta era, it may be mentioned that this controversy as to the date first started in the Mysore Archaeological Report for 1922-23. Where distinguished scholars join issue on this point and Dr. Shama Sastri himself attempts to harmonise the traditional information concerning the era as preserved in the Jaina, Buddhist and Brahmanic literature with the statement of Alberuni, the Mandasor inscription and the records of the Parivrajaka Maharajas and the entire consideration of the question depends upon the genuineness of the grants and astronomical calculations it is not possible to hazard any criticism. About 170 records of varying interest belonging to several dynasties of Mysore were collected during the year. The plates are, as usual, very well prepared and we congratulate the Department on the good work done during the year.

S. S.

### The Aravidu Dynasty of Vijayanagara.

BY REV. H. HERAS, S.J., M.A.

B. G. Paul & Co., Publishers, Madras. Rs. 10.

REV. FATHER HERAS is a most valued contributor to the columns of this Journal, particularly on Vijayanagara history. His articles are always characterised by deep learning, wide scholarship and general culture. He always brings a fresh point of view to bear upon the subject of his study. For painstaking industry and thorough research, Father Heras has hardly a rival. It is no wonder that he is fast becoming a recognised authority on whatever pertains to the Vijayanagar Empire.

*A Forgotten Empire* by Robert Sewell says very little of the history of Vijayanagara during the period 1542 to 1770, a period intended to be covered by Father Heras in two volumes. Its importance to the student of Indian history

cannot be gainsaid, for, as Sir Richard Temple, in the prefatory note, remarks, the history of the last dynasty of Vijayanagar is the story of Hinduism. It is the period in which European greed and European ambition and European commerce found their way in varying proportion to the East. The rise of the European power in India was marked by the invasions of the Portuguese, the Dutch, the Danes, the French and the English and by a struggle for supremacy amongst these powers. There was considerable Jesuit activity during the period and Christianity became for a time the great proselytiser on the Western coast and in the South. It was much more; the Hindu and the Mahomedan fought for supremacy in the Deccan on the one side, while the Vijayanagar viceroys fought amongst themselves or with their suzerain on the other, offering an easy approach to the European powers to join and take sides to suit their own purposes.

In unravelling the tangled skeins of South Indian history of the period and presenting an intelligent account thereof, Father Heras has had the unique advantage of gaining access into a very large number of unpublished records. If we should remember that about the commencement of the fifteenth century, Vijayanagar ruled over the whole of Southern India and that the history of the Aravidu dynasty was a history of the Telugu domination over the Tamil and the Kanarese people, we will be able to see how internecine strife and religious animosities brought about the downfall of the Vijayanagar Empire. Everyone knows the battle of Raksas-Thagadi, the execution of Rama Raya and the end of the Thuluva dynasty. The Aravidu family was connected by marriage with the reigning Thuluva dynasty and the Aravidu Thirumala came to the Vijayanagar throne transferring his capital to Penugonda.

The volume under review contains the history of Venkata I, of Sadasivaraya, of Thirumala who established the family on the Vijayanagar throne, of Ranga I, and of Venkata II. On the death of the latter followed civil war hastening the decay of the Empire.

The author devotes considerable attention to the mission of Father Roberts De Nobili at Madura, to Venkata II's relations with the Portuguese, Dutch and the English, and to the conditions of the Jesuits at the court of Venkata II and concludes with an account of the literary activity under the first Aravidu sovereigns and of the struggle between Srivaishnavism and other sects. The bibliography is full. The various conclusions arrived at by Rev. Father Heras continue to be controversial and to some of these a reference has already been made in the pages of this issue of the Journal. We, however, agree with the opinion of Sir Richard Temple that history cannot be more fairly presented than by giving the unpublished documents themselves in their original languages for verifying the conclusions drawn from them as in this case. The volume is well illustrated and we conclude this review with a hope that in a future revision of this work, by a slight rearrangement of matter and by omissions of repetitions to support his arguments, the author will be able to condense the size.

1. The Forehead Mark of Rev. XXII: 4 is the Vaishnava Namam.
2. A Tamil Piece of St. Paul.
3. Was Jesus Christ a Visvakarma Brahmana?
4. Was Jesus Christ a Vegetarian?
5. Biblical Reference to Maurya Dynasty of India.
6. The Welsh National Anthem—a Tamil Song.

BY M. S. RAMASWAMI AIYAR, ESQ., B.A., M.R.A.S.

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THE above six pamphlets have been sent to us by Mr. M. S. Ramaswami Aiyar, B.A., M.R.A.S., Deputy Superintendent of Police, Madras Presidency. The subjects are all very thought-provoking and the result of considerable study and research. The writer is a frequent contributor to the *Hindu* and other daily newspapers on these and kindred subjects. He seems to think that Jesus was a Tamilian by nationality, being a Visvakarma Brahman and a vegetarian, that there was an exodus of the Tamilians into England in olden days, etc. He finds the Mauryan Dynasty is referred to in the Bible, and Palestine an Indian colony. There is some evidence of Indian migration to Armenia, etc., and it may not, after all, be unreasonable to suppose that during the period of which we are speaking there was extensive Indian migration to foreign lands. Mr. Ramaswami Aiyar will be doing a distinct service by carefully revising his papers and publishing them in book form.

S. S.

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## 1. South Indian Bronzes.                      2. The Art of Java.

BY O. C. GANGULY, ESQ.

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MR. O. C. GANGULY, Editor of the *Rupam*, a well-known art periodical in India, has published a pictorial series with a neat introduction to each, in 'Little Books on Asiatic Art'. Volume I of the first series is concerned with Southern Indian Bronzes. It contains 22 plates with a description of each plate preceded by a short, yet comprehensive, introduction in which the characteristics of the Bronze images, the creative art in them, its influence on the contemporary life in Southern India, its importance in religion, etc., have been detailed. He considers that the age of the metallic image ushered in the era of processions of moving Gods or Uthsava Murties. Prof. Ganguly also illustrates with diagrams the various Dhyanas and Lakshanas, etc., of these images and their religious significance. In these images the *alpha* to *omega* of expression, pose and form are to be found and to know them and to appreciate them is to receive an initiation into a new world of plastic dreams hitherto unrevealed.

*The Art of Java* is deservedly the second volume in the series. Prof. Ganguly has described elsewhere the Javanese Art in all its glory. The Dravidian culture and influence permeating the entire art of Java, of Cambodia and of Siam have been referred to by well-known writers in their publications of the Greater India Society.

Prof. Ganguly's article on the Cult of Agasthya and Dr. Kalidas Nag's lectures referring to the scenes from the *Ramayana* and the *Mahabharata* as gleaned from the Javanese sculpture may be familiar to many. To go through the fifty-seven plates in the "Art of Java" before us, is to cultivate an acquaintance with familiar scenes in South India itself, and for one or two of them to near Anuradhapura. Both in style, in the detail of workmanship and in the subject-matter of the art, Borobudur and the other places in Java have no distinguishing features which mark them out from South Indian Sculpture and for a topical reference, you might refer to plate No. 36—Mahishasura Mardhini. Prof. Ganguly, with characteristic thoroughness, appends a historical introduction to this brochure and it shows how the religion of India and the political upheavals in Southern India have influenced time and again the island of Java. Thus Indian Art is a continuation and a logical development, by Indian hands, in Java, of the principles and symbols of Indian creation, subject to local needs and requirements. We are confident that the completion of the series will prove that the civilization of Greater India was a part and parcel of the art and civilisation of the Indian continent.

S. S.

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### Kathakopanishad.

BY D. VENKATRAMIAH, ESQ., B.A., L.T.  
Messrs. Macmillan & Co., Madras.

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MR. D. VENKATRAMIAH has published in book form his translation of this Upanishad, first published with critical notes in the Society's Journal, with the original text and a short introduction. The notes are based on Sankara's Commentary and the interpretations of the Advaita School. The Story of Nachiketas sends a thrill through your every fibre as you read it and to the problems connected with the knowledge of immortality the Upanishad in question is said to give an answer of which Mr. D. Venkatramiah gives us an intelligent account in the introduction. An exhaustive glossary completes the book. It is excellently printed on feather-weight paper and the publishers are to be congratulated for bringing out this Upanishad in a complete form.

S. S.

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### Satyashodhane, Part III.

VISWAKARNATAKA OFFICE, BANGALORE.

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In this book the Kannada translation of Mahatma Gandhi's Autobiography is continued in the same readable manner and the translator deserves every encouragement from the Kanarese people.

S. S.

## History of the Pallavas of Kanchi.

BY R. GOPALAN, ESQ., M.A.

Published by the Madras University.

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UNDER the distinguished editorship of Dr. S. Krishnaswamy Aiyangar in the Madras University Historical Series, Mr. R. Gopalan has brought forth a history of the Pallavas of Kanchi with an introduction by the Editor. It is claimed for this work that it carries us as near to an up-to-date history of the Pallavas as possible. The introduction says that the Pallavas were not Pahlavas or foreigners; but in all probability they belonged to a Dravidian family though not indigenous to Kanchi itself. Dr. Krishnaswamy Aiyangar has dwelt exhaustively with the vicissitudes of Pallavas in South Indian History and it is needless to advert to it. Prof. Dubreuil of Pondicherry and Dr. S. K. Aiyangar himself have contributed in no small measure to invite public attention to controversial topics and in attempting to clear up the confusion. We congratulate Mr. Gopalan for the excellent sketch he has given of the rise, growth and decay of the Pallavas of Kanchi. Appendix "A" gives a chronological index of Pallava inscriptions, while the others give some extracts from the other works of reference. The Pallavas are famous for their cave-temples and it is but fitting that this book should contain a map showing the distribution of Pallava cave-temples. The illustrations in the book are interesting.

S. S.

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## The Mahratta Rajas of Tanjore.

BY K. R. SUBRAMANIAN, ESQ., M.A.

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THE history of Mahratta Rajas contains a foreword by Mr. P. T. Sreenivasa Aiyangar. Mr. Subramanian is a patriotic and enthusiastic student of history and has taken great interest in giving a history of his native district for two centuries. The Rajas of Tanjore have left a living impression of Mahratta rule in almost every village or hamlet in the Tanjore country and a political and cultural history of the period 1675 to 1800 is a necessary complement for any history of South India. The economic conditions of the period are well described in the concluding chapters of the book. The author has taken considerable trouble in consulting the authorities and has placed before the reading public a very readable and concise account of the history of Mahratta rule over Tanjore.

S. S.

## Annual Bibliography of Indian Archæology.

KERN INSTITUTE, LEYDEN.

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IT is a matter for considerable satisfaction that with the help of competent scholars both in Europe and in India, the publication of the *Annual Bibliography of Indian Archæology* should have become an accomplished fact. By their publication, the Kern Institute have laid students interested in the ancient culture, art and history of India under a great and lasting obligation. The object of the Bibliography is to make the publications of Indian scholars in their antiquarian investigations written either in English or in the vernacular more widely known in Europe and America as well as to familiarise in India archæological work done elsewhere wherever it has been affected by the influence of Indo-Aryan civilisation. The work makes an appeal to the cultured and learned classes of India. It contains a catalogue of books and articles dealing with the investigations of the antiquities in India and in Greater India, with extracts and brief notes calculated to provide an estimate of the purport and value of each book or article. The introduction deals with many important investigations of the year and is of absorbing interest and the plates are taken from the excavations, etc., at Mohenjo-daro, Cambodia, Borneo and Java.

S. S.

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## Subscriptions and Donations received during the Quarter ending 31st March, 1929.

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1. Kalidāsa Mahakaviyū Sringararasavannu Chitrisiruva Bagé—by C. K. Venkataramaiya (Kannada).
2. Bharata Dharma of Dr. S. Radhakrishnan—Part I.  
Translated into Kannada—by N. Seshadri Sarma.
3. Do. do. Part II.
4. Wisdom of the Prophets (In the Light of Tasawwuf)—by Khaja Khan.
5. Nataraja Bhakta Nanda or Nanda Charitré (Kannada)—by N. Seshadri Sarma.
6. The Outlines of Vedānta based on Sri Sankara's Dakshinamoorthy Stotra—by Dr. M. Srinivasa Rao.

**The Kerala Society, Trivandrum—**

Kerala Society Papers.

**Government of Mysore—**

1. Report of the Administration of Mysore for the year 1927-28.
2. Report of the Working of the Amrit Mahal Department for 1927-28.

**Viswakarnataka Office, Bangalore City—**

Satyashodhané or The Autobiography of Mahatma Gandhi (Kannada)—  
Part III.

**Sri Vanī Vilas Press, Srirangam—**

Indian Æsthetics—by K. S. Ramaswamy Sastri.

**Government of India—**

1. Supplement to the Annual Report on South-Indian Epigraphy for the year ending 31st March 1927. (Stone Inscriptions of the Bombay-Karnatak copied during the year 1926-27.)
2. Memoirs of the Archæological Survey of India No. 36: The Dolmens of the Pulney Hills—by the Rev. A. Anglade, S.J. and the Rev. L. V. Newton, S.J.
3. Archæological Survey of India: Annual Report for 1925-26.

**Asiatic Society of Bengal—**

Memoirs of the Asiatic Society of Bengal: Vol. XI, No. 1, pp. 1—72:  
Diaries of Two Tours in the Unadministered Area east of the Naga Hills—by J. H. Hutton.

**Smithsonian Institution, Washington—**

1. Smithsonian Miscellaneous Collections: Vol. 81, No. 4. Drawing by Jacques Lemoyne De Morgues of Saturiona, A Timicua Chief in Florida, 1564—by David I. Bushnell, Jr.

(*From the Smithsonian Reports for the years mentioned against each*)—

2. Palæontology and Human Relations (1927)—by Stuart Weller.
3. The Evidence bearing on Man's Evolution (1927)—by Ales Hrdlicka.
4. The Origins of the Chinese Civilization (1927)—by Henri Maspero.
5. Archæology in China (1927)—by Liang Chi-Chao.
6. Indian Villages of South-East Alaska (1927)—by Herbert W. Krieger.
7. The Interpretation of Aboriginal Mounds by means of Creek Indian Customs (1927)—by John R. Swanton.
8. Friedrich Kurz, Artist-Explorer (1927)—by David I. Bushnell, Jr.
9. The Origin and Antiquity of the American Indian (1923)—by Ales Hrdlicka.

**University of Mysore—**

1. The Calendar for the year 1928-29, Vol. I.
2. Do. do. do. Vol. II.

**University of Madras—**

History of the Pallavas of Kanchi—by R. Gopalan.  
(Madras University Historical Series No. III—Edited by S. Krishnaswami Aiyangar.)

**Messrs. D. B. Taraporevala Sons & Co., Bombay—**

1. Zoroastrian Religion and Customs—by Ervad Sheriarji Dadabhai Bharucha.
2. The Mysterious Kundalini (2nd Edition)—by Vasant G. Rele.

**By Purchase—**

1. Historical Record of the Imperial Visit to India, Delhi, 1911: (Published from Authorized Records and for the Government of India).
2. The Indian Quarterly Register, 1928, Vol. I (January—June): Mitra.



## EXCHANGES.

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Editors of:—

1. "HINDUSTAN REVIEW," *P.O. Box No. 2139, Calcutta.*
2. "INDIAN ANTIQUARY," *British India Press, Managauon, Bombay.*
3. "CEYLON ANTIQUARY," *The "Times of Ceylon", Colombo.*
4. "MODERN REVIEW," *91, Upper Circular Road, Calcutta.*
5. "THE HINDU MESSAGE," *Srirangam.*
6. "WEDNESDAY REVIEW," *Teppakulam, Trichinopoly.*
7. "THE SOUTH INDIAN RESEARCH," *Vepery, Madras.*
8. "THE EASTERN BUDDHIST," *39, Ono Machi, Koyama, Kyoto (Japan).*
9. "THE CHRISTIAN COLLEGE MAGAZINE," *Madras.*
10. "THE EDUCATIONAL REVIEW," *Mount Road, Madras.*
11. "THE VEDIC MAGAZINE," *Gurukula, Kangri, District Bijnor.*
12. "ZEITSCHRIFT DER DEUTSCHEN MORGENLANDISCHEN  
GESELLSCHAFT," *Halle, Germany.*
13. "THE SANSKRIT BHARATHI," *Burdwan, Bengal.*
14. "THE JOURNAL OF THE AMERICAN ORIENTAL SOCIETY,"  
*New Haven, Connecticut, U.S.A.*
15. "THE KALPAKA," *Tinnevely.*
16. "EVERYMAN'S REVIEW," *Madras.*
17. "MAN," *The Royal Anthropological Institute, London.*
18. "DJAWA," *Kanarillaan, Kadipolo, Solo.*
19. "MAN IN INDIA," *Ranchi, B.N.Ry. (India).*
20. "THE KARNATAKA GRANTHAMALA," *Mysore.*
21. "THE EVENING MAIL," *New Tharagupet, Bangalore City.*
22. "THE JAINA GAZETTE," *436, Mint Street, Madras.*
23. "THE INDIAN SOCIAL REFORMER," *Narsari Chambers,  
Outram Road (opposite Hornby Road), Fort, Bombay.*
24. "PRABUDDHA BHARATA," *Adwaita Asrama, Mayavati P.O.,  
Almora Dist.*
25. "THE SHAMA'A," *Aghore Mandir, San Thome, Madras.*
26. "VISHVA-BHARATHI," *10, Cornwallis Street, Calcutta.*
27. "NAVASHAKTI," *Dharwar.*
28. "THE SHRINE OF WISDOM," *Aahlu, 6, Hermon Hill, London, E. 11.*
29. "WELFARE," *91, Upper Circular Road, Calcutta.*
30. "MYSORE BLUE BOOK AND PUBLICITY JOURNAL," *Bangalore.*

31. "BUDDHIST ANNUAL OF CEYLON," *Colombo.*
32. "KARNATAKA SAHITYA PARISHATPATRIKA," *Bangalore.*
33. "EPIGRAPHIA INDO-MOSLEMICA," *Simla.*
34. "YOGAMIMAMSA," *Kunjavana, Lonavla, Bombay.*
35. "MAHARAJA'S SANSKRIT COLLEGE MAGAZINE," *Mysore.*
36. "THE MYSORE GAZETTE," *Librarian, Public Offices, Bangalore.*
37. "PRABUDDHA KARNATAKA," *Karnataka Sangha, Central College, Bangalore.*
38. "INDIAN STORY TELLER," 164, *Cornwallis Street, Calcutta.*
39. "THE GUARDIAN," 86, *College Street, Calcutta.*
40. "THE YOUNG MEN OF INDIA," 5, *Russell Street, Calcutta.*
41. "THE PREMA," *Tungabhadra P.O.*
42. "AL-KALAM," *Bangalore.*
43. "VRITTANTA PATRIKA," *Mysore.*
44. "MYSORE CO-OPERATIVE JOURNAL,"  
*No. 1, 1st Road, Chamarajapet, Bangalore City.*
45. "INDIAN HISTORICAL QUARTERLY," 107, *Mechuabazar Street, Calcutta.*
46. "THE PHILOSOPHICAL QUARTERLY," *Amalner (East Khandesh).*
47. "THE KARNATAKA," *Basavangudi P.O., Bangalore City.*
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49. "INDIAN REVIEW," *George Town, Madras.*
50. "THE VEDANTA KESARI," *Ramakrishna Mutt, Mylapore, Madras.*
51. "JOURNAL OF INDIAN HISTORY," *Sri Jayavasam, East Mada Street, Madras.*
52. "ASIA MAJOR," 2, *Store Road, Ballygunge, Calcutta.*
53. "THE MYSORE ECONOMIC JOURNAL," *Gundopunt Street, Bangalore City.*
54. "THE CATHOLIC EDUCATIONAL REVIEW," *Mangalore.*
55. "THE INDIAN THINKER," *Anantha Rama Varma Press, Fort, Trivandrum.*
56. "RURAL INDIA," No. 9, *Brodie's Road, Mylapore, Madras.*
57. "SWADHARMA," No. 1647, *Desai Oni, Dharwar.*
58. "BHARATI," *Post Box No. 212, Madras.*
59. "SANATHANA DHARMA SANJIVINI," No. 445, *Kempananjamba Agrahar, Mysore.*
60. "VISWA-KARNATAKA," *New Tharagupet, Bangalore City.*
61. "THE HUMANIST," *Jayabhavan, Gangadhara Chetty Road, Bangalore.*
62. "THE MYSORE UNIVERSITY JOURNAL," *University, Mysore.*

## Publications from :—

63. THE DIRECTOR OF PUBLIC INSTRUCTION, *Poona*.
64. THE DIRECTOR-GENERAL OF ARCHÆOLOGY, *Simla*.
65. THE GENERAL SECRETARY, BIHAR & ORISSA RESEARCH SOCIETY, *Patna*.
66. Do. "THE ROYAL ASIATIC SOCIETY,"  
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*1, Park Street, Calcutta.*
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72. THE REGISTRAR, UNIVERSITY OF DACCA, *Ramna, Dacca.*
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74. THE REGISTRAR, UNIVERSITY OF CALCUTTA, *Calcutta.*

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75. THE CONNEMARA PUBLIC LIBRARY, *Madras.*
76. THE ARCHÆOLOGICAL SOCIETY, *Hyderabad (Deccan).*
77. THE ROYAL ASIATIC SOCIETY, *74, Grosvenor Street, London, W. 1.*
78. THE BHANDARKAR ORIENTAL INSTITUTE, *Poona.*
79. LE BIBLIOTHECAIRE, SOCIÉTÉ ASIATIQUE,  
*1, Rue de Seine, Paris.*
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85. THE K. R. CAMA ORIENTAL INSTITUTE,  
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86. ASSOCIATION FRANÇAISE DES AMIS DE L'ORIENT,  
*Musée Guimet, Place d'Iena, Paris (XVI).*
87. THE ANDHRA HISTORICAL RESEARCH SOCIETY, *Rajahmundry.*
88. THE TELUGU ACADEMY, *Cocanada.*
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**INDEX TO VOLUME XVIII**  
**(For the year 1927-28)**

---

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# INDEX TO VOLUME XVIII.

## TITLES.

	PAGES.
Annual Meeting of the Mythic Society—The Seventeenth ..	3— 16.
Bird-Myths—Studies in, No. XVI (On Two Aetiological Myths about the Paddy-Bird's Long Neck and Legs).	
By Sarat Chandra Mitra, Esq. .. .. .	57— 60
Bird-Myths—Studies in, No. XVII (On an Aetiological Myth about the Carrion-Feeding Habit of the Indian White-Backed Vulture and the Smaller White Scavenger Vulture).	
By Sarat Chandra Mitra, Esq. .. .. .	61— 64.
Bird-Myths—Studies in, No. XVIII (On an Aetiological Myth about the Turtle Dove and other Species of Doves).	
By Sarat Chandra Mitra, Esq. .. .. .	167—169
Bird-Myths—Studies in, No. XIX (On an Aetiological Myth about the Brown Fish-Owl).	
By Sarat Chandra Mitra, Esq. .. .. .	170—172
Bird-Myths—Studies in, No. XX (On an Aetiological Myth about the Barn-Owl or the Screech-Owl).	
By Sarat Chandra Mitra, Esq. .. .. .	220—223
Bird-Myths—Studies in, No. XXI (On an Aetiological Myth about the Golden-Backed Woodpecker, the Indian Spotted Woodpecker and other Species).	
By Sarat Chandra Mitra, Esq. . . . .	288—291
Chitradurga—Capitulation of.	
By S. Srikanta Sastri, Esq. .. .. .	145—154
Cow-Protection in India—History of.	
By L. L. Sundara Ram, Esq. (Lanka Sundaram) ..	21—23 ; 115—128
Elephant-Catching—Ancient and Modern.	
By P. S. Govinda Rao, Esq. .. .. .	87— 99
Hamsasandesa—A Study.	
By K. Krishnamacharya, Esq. .. .. .	184—195 ; 246—255
Hill Pandarams of Travancore—A Preliminary Note on the.	
By L. A. Krishna Iyer, Esq. .. .. .	181—183
Hindu Arabic Numerals—The.	
By A. A. Krishnaswami Ayyangar, Esq. .. .. .	256—267
Hindu Shrine in China—A.	
By K. Ramavarma Raja, Esq. .. .. .	141—144
Irikkal Kovilagam, Trichur.	
By A. Govinda Wariar, Esq. .. .. .	217—219

	PAGES.
Kanikars of Travancore—Anthropometry of the.	
By L. A. Krishna Iyer, Esq. . . . .	210—211
Malayarayans of Travancore—The.	
By L. A. Krishna Iyer, Esq. . . . .	241—245
Mouryan Invasion of the Tamilakam.	
By Soma Sundara Desikar, Esq. . . . .	155—166
Oxyrhyncus Papyri No. 413—Kannada Passages in.	
By S. Srikantaiya, Esq. . . . .	294—341
Plant-Myths—Studies in, No. I (On an Aetiological Myth about the Night-Flowering Jessamine).	
By Sarat Chandra Mitra, Esq. . . . .	292—293
Revenue of Bombay—A Document with the Early.	
By Sylvester Lobo, Esq. . . . .	100—114
Sex in Fiction—Change of.	
By Kalipada Mitra, Esq. . . . .	46— 52
Suryapraghnapti.	
By Dr. R. Shama Sastry. . . . .	32—45 ; 129—140 ; 196—209 ; 274—287
Tamil Kings and Their Government—The.	
By Pandit N. Chengalvaroyan. . . . .	212—216
Thevaram Period—Economic Conditions of the.	
By K. R. Subramanian, Esq. . . . .	268—273
Tortoise in Indian Life and Religion—The.	
By S. T. Moses, Esq. . . . .	53— 56

## AUTHORS.

Chengalvaroyan, Pandit N. :	
Tamil Kings and Their Government . . . . .	212—216
Desikar, Soma Sundara :	
Mouryan Invasion of the Tamilakam . . . . .	155—166
Govinda Rao, P. S. :	
Elephant-Catching: Ancient and Modern . . . . .	87— 99
Krishna Iyer, L. A. :	
A Preliminary Note on the Hill Pandarams of Travancore . . . . .	181—183
Anthropometry of the Kanikars of Travancore . . . . .	210—211
The Malayarayans of Travancore . . . . .	241—245
Krishnamacharya, K. :	
Hamsasandesha—A Study . . . . .	184—195 ; 246—255
Krishnaswami Ayyangar, A. A. :	
The Hindu Arabic Numerals . . . . .	256—267
Lobo, Sylvester :	
A Document with the Early Revenue of Bombay . . . . .	100—114
Mitra, Kalipada :	
Change of Sex in Fiction . . . . .	46— 52



	PAGES.
Mitra, Sarat Chandra :	
Studies in Bird-Myths—No. XVI. (The Paddy Bird's Long Neck and Legs) .. .. .	57— 60
Studies in Bird-Myths—No. XVII. (The Carrion-Feeding Habit of the Indian White-Backed Vulture and the Smaller White Scavenger Vulture) .. .. .	61— 64
Studies in Bird-Myths—No. XVIII. (The Turtle Dove, etc.) ..	167—169
Studies in Bird-Myths—No. XIX. (The Brown Fish-Owl) ..	170—172
Studies in Bird-Myths—No. XX. (The Barn-Owl or the Screech-Owl) .. .. .	220—223
Studies in Bird-Myths—No. XXI. (The Golden-Backed Woodpecker, the Indian Spotted Woodpecker and other Species) ..	288—291
Studies in Plant-Myths—No. I. (The Night-Flowering Jessamine)	292—293
Moses, S. T. :	
The Tortoise in Indian Life and Religion .. .. .	53— 56
Raja, K. Ramavarma :	
A Hindu Shrine in China .. .. .	141—144
Shama Sastry, Dr. R. :	
Suryapragnapti .. .. .	32—45 ; 129—140 ; 196—209 ; 274—287
Srikantaiya, S. :	
Kannada Passages in the Oxyrhyncus Papyri No. 413 ..	294—341
Srikanta Sastry, S. :	
Capitulation of Chitradurga .. .. .	145—154
Subramanian, K. R. :	
Economic Conditions of the Thevaram Period .. .. .	268—273
Sundara Ram, L. L. (Lanka Sundaram):	
History of Cow-Protection in India .. .. .	21—23 ; 115—128
Wariar, A. Govinda :	
Irikkal Kovilagam, Trichur .. .. .	217—219

## REVIEWS.

By Rev. H. Heras :	
Studies in Indian Painting, by N. C. Mehta .. .. .	72— 73
By Rev. C. Brown :	
Journal of the Department of Letters, Vol. XIV, Calcutta University	74
Manu's Land and Trade Laws, by R. S. Vaidyanatha Ayyar ..	75
By S. Srikantaiya, Esq. :	
Bhim Singh : A Romance of Moghul Times, by Frank R. Sell ..	76
Report of the Mysore Archæological Department for 1926 ..	225—226
By M. Venktesia, Esq. :	
The Historical Geography of Early Japan, by Carl Whiting Bishop	173—174
The Earliest Monuments of the Pandya Country and Their Inscriptions, by K. V. Subrahmanya Ayyar .. .. .	174—175

	PAGES
By K. Devanathachariar, Esq. :	
Sri Krishnaraja Silver Jubilee Souvenir .. .. .	227—229

### NOTES.

Orientation :	
By K. Ramavarma Raja, Esq. . . . .	65— 66
Date of the Commentary on Naisadhakavya, by Candupandita :	
By P. K. Gode, Esq. . . . .	224
Orientation :	
By K. Ramavarma Raja, Esq. . . . .	342—343
Buhler's Error in the Interpretation of the Date of Candupandita :	
By P. K. Gode, Esq. . . . .	344

### CORRESPONDENCE.

Ceylon and Lanka are Different :	
From D. B. Diskalkar, Esq. . . . .	67
Agastya, the Spiritual Preceptor of the Lata Chaulukyas :	
From D. B. Diskalkar, Esq. . . . .	68
Salivahana Era :	
From V. S. Bakhle, Esq. . . . .	69— 71
Salivahana Saka :	
From S. Srikantha Sastri, Esq. . . . .	230—231

The  
**Quarterly Journal**  
of the  
**Mythic Society**

INDEX TO VOLUME XIX  
(For the year 1928-29)

---

DALY MEMORIAL HALL  
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# INDEX TO VOLUME XIX.

## TITLES.

	PAGES.
Annual Meeting of the Mythic Society—The Eighteenth	85— 92
Ants and Folk-Beliefs in South India.	
By S. T. Moses, Esq.	41— 44
Arts in Malabar—Glimpses of the History of.	
By A. Govinda Wariar, Esq.	222—227
Augustus in the South of India—The Temple of.	
By Mons. G. Jouveau Dubreuil	180—181
Bird-Myths—Studies in, No. XXII (On a Second Aetioloical Myth about the Indian Black-Headed Oriole).	
By Sarat Chandra Mitra, Esq.	67— 68
Bird-Myths—Studies in, No. XXIII (On a Bird-Myth from the District of Tippera in Eastern Bengal).	
By Sarat Chandra Mitra, Esq.	69— 72
Bird-Myths—Studies in, No. XXIV (On a Lushai-Kuki Aetioloical Myth about the Jungle Babbler).	
By Sarat Chandra Mitra, Esq.	150—151
Bird-Myths—Studies in, No. XXV (On a Lushai-Kuki Aetioloical Myth about the King-Crow).	
By Sarat Chandra Mitra, Esq.	228—229
Bird-Myths—Studies in, No. XXVI (Further Notes on the Bihari Myth about the Indian House-Crow).	
By Sarat Chandra Mitra, Esq.	314—315
Comparative Studies or My Random Rambles in Solitude.	
By K. Ramavarma Raja, Esq.	189—196
Dravidian Civilization in Palestine.	
By R. S. Vaidyanatha Ayyar, Esq.	171—179
Goa Viragal of the Time of Harihara II of Vijayanagara.	
By Rev. H. Heras	1— 28
Hindu Arabic Numerals—The.	
By A. A. Krishnaswami Ayyangar, Esq.	29—40 ; 115—133
Mahodayapuram (or Makoti).	
By K. Ramavarma Raja, Esq.	93—100
Malayarayans of Travancore—The.	
By L. A. Krishna Iyer, Esq.	101—109 ; 182—188
Mughal Land Revenue System—The.	
By L. L. Sundara Ram, Esq. (Lanka Sundaram).	45—56 ; 134—149 ; 206—221 ; 270—286

Plant-Myths—Studies in, No. II. (On a Birhor Aetiological Myth about the Pinnate Leaves of the Tamarind Tree).	
By Sarat Chandra Mitra, Esq.	152—153
Plant-Myths—Studies in, No. III (On a Birhor Aetiological Myth about the Pinnate Leaves of the Wild Date Palm).	
By Sarat Chandra Mitra, Esq.	230—231
Plant-Myths—Studies in, No. IV (On a Birhor Aetiological Myth about the Tenacious Vitality of the Jujube Tree).	
By Sarat Chandra Mitra, Esq.	316—319
Rajadhiraja II.	
By Soma Sundara Desikar, Esq.	57—66
Sumero-Dravidian and Hittite-Aryan Origins.	
By R. S. Vaidyanatha Ayyar, Esq.	294—313
Svetasvataropaniṣad.	
By D. Venkatramiah, Esq.	197—205; 287—293
Varna-Dharma <i>Vs.</i> Asrama-Dharma.	
By K. Krishnamacharya, Esq.	110—114
Vijayanagar History—Some Problems of Identity in Early.	
By R. Rama Rao, Esq.	251—269

## AUTHORS.

Desikar, Soma Sundara:	
Rajadhiraja II	57—66
Dubreuil, G. Jouveau:	
The Temple of Augustus in the South of India	180—181
Heras, Rev. H.:	
Goa Viragal of the Time of Harihara II of Vijayanagara	1—28
Krishna Iyer, L. A.:	
The Malayarayangans of Travancore	101—109; 182—188
Krishnamacharya, K.:	
Varna-Dharma <i>Vs.</i> Asrama-Dharma	110—114
Krishnaswami Ayyangar, A. A.:	
The Hindu Arabic Numerals	29—40; 115—133
Mitra, Sarat Chandra:	
Studies in Bird-Myths—No. XXII. (The Indian Black-Headed Oriole)	67—68
Studies in Bird-Myths—No. XXIII. (From Tippera in Eastern Bengal).	69—72
Studies in Bird-Myths—No. XXIV. (The Jungle Babbler)	150—151
Studies in Bird-Myths—No. XXV. (The King-Crow)	228—229
Studies in Bird-Myths—No. XXVI. (Indian House-Crow)	314—315
Studies in Plant-Myths—No. II. (The Pinnate Leaves of the Tamarind Tree)	152—153

	PAGES.
Studies in Plant-Myths—No. III. (The Pinnate Leaves of the Wild Date Palm) .. .. .	230—231
Studies in Plant-Myths—No. IV. (Tenacious Vitality of the Jujube Tree) .. .. .	316—319
Moses, S. T. :	
Arts and Folk-Beliefs in South India .. .. .	41—44
Raja, K. Ramavarma :	
Comparative Studies or My Random Rambles in Solitude ..	189—196
Mahodayapuram (or Makoti) .. .. .	93—100
Rama Rao, R. :	
Some Problems of Identity in Early Vijayanagar History ..	251—269
Sundara Ram, L. L. (Lanka Sundaram) :	
Mughal Land Revenue System .. 45—56 ; 134—149 ; 206—221 ; 270—286	
Vaidyanatha Ayyar, R. S. :	
Dravidian Civilization in Palestine .. .. .	171—179
Sumero-Dravidian and Hittite-Aryan Origins .. .. .	294—313
Venkatramiah, D. :	
Svetasvataropaniśad .. .. .	197—205 ; 287—293
Wariar, A. Govinda :	
Glimpses of the History of Arts in Malabar .. .. .	222—227

## REVIEWS.

By B. Ramaswamaiya, Esq. :	
Kiriya Kanike .. .. .	77
By S. Srikantaia, Esq. :	
Kannada Kaipidi, Vol. I .. .. .	77—78
Speeches by His Highness the Maharaja of Mysore, 1902—1927 ..	156—157
Bhagavad-Gita .. .. .	157—160
The Humanist .. .. .	160—161
The Lady of the Lotus (Rup Mati) .. .. .	234—237
Report of the Mysore Archaeological Department for 1927 ..	323—324
The Aravidu Dynasty of Vijayanagara, by Rev. H. Heras ..	324—325
The Forehead Mark of Rev. XXII : 4 is the Vaishnava Namam ; A Tamil Piece of St. Paul ; Was Jesus Christ a Visvakarma Brahmana ? ; Was Jesus Christ a Vegetarian ? ; Biblical Reference to Maurya Dynasty of India ; The Welsh National Anthem—a Tamil Song—all by M. S. Ramaswamy Aiyar, Esq. ..	326
South Indian Bronzes and The Art of Java, by O. C. Ganguly, Esq.	326—327
Kathakopaniśad, by D. Venkatramiah, Esq. .. .. .	327
Satyashodhane, Part III, Viswakarnataka Office .. .. .	327
History of the Pallavas of Kanchi, by R. Gopalan, Esq. ..	328
The Mahratta Rajas of Tanjore, by K. R. Subramanian Esq. ..	328

	PAGES.
By S. Srikantaiya, Esq. :	
Annual Bibliography of Indian Archæology .. ..	329
By M. Venktesia, Esq. :	
Satyashodhane or My Experiments with Truth (Kannada Translation.)	78
By M. Shama Rao, Esq. :	
Mahabharata (Sanskrit) .. ..	238
By S. M. Sitaramaiya, Esq.	
Mysore Desada Vasthu Silpa, Part I, by B. Venkoba Rao, Esq. ..	239
By A. N. Narasimhaiya, Esq. :	
Kalidasa Mahakaviyu Sringararasavannu Chitrisiruva Bage, by	
C. K. Venkataramaiya, Esq. .. ..	240
Rannakavi Prashasti .. ..	241—242

### NOTES.

#### Evolution of War :

By Dr. John W. Graham .. .. 73—74

#### The Divine in Man :

By Dr. John W. Graham .. .. 75—76

#### Bana's Fort—An Ancient Monument in Cochin State :

By A. Govinda Wariar, Esq. .. .. 154—155

#### A Note on Gunavayil Kottam :

By A. Govinda Wariar, Esq. .. .. 232—233

#### Tamil and Sanskrit :

By K. Krishnamacharya, Esq. .. .. 320—322

(173) *[Signature]*





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